

১. **Course Number: ACC 101**

Course Title: ভাষা ও মাতৃভাষা (Language and Mother Tongue)

২. **ক্রেডিট ঘণ্টা: ৪**

৩. **কোর্সের বর্ণনা**

ভাষা ও মাতৃভাষা কোর্সটি শিক্ষা (সম্মান) শ্রেণির একটি আবশ্যিক বিষয়। কোর্সের প্রতিপাদ্য মাধ্যমিক স্তর পার হয়ে আসা শিক্ষার্থীদের মাতৃভাষার অন্তর্নিহিত শক্তি ও নিয়ম সম্পর্কে ধারণা প্রদানের মাধ্যমে ভাষিক জ্ঞানার্জন ও প্রায়োগিক দক্ষতা অর্জনে সহায়তা করা।

৪. **কোর্সের উদ্দেশ্য**

শিক্ষার্থীদের

১. ভাষার মূল উপাদান সম্পর্কে ধারণা অর্জনে সহায়তা প্রদান।
২. বাঙালি জাতি ও বাংলা ভাষার বিবর্তনের ধারণা প্রদান।
৩. মাতৃভাষা ও শিক্ষায় মাতৃভাষার গুরুত্ব অবহিতকরণ।
৪. বাংলা উচ্চারণ ও বানানরীতি সম্পর্কে অবহিতকরণ এবং এর প্রায়োগিক দক্ষতা অর্জনে সহায়তা করা।
৫. আন্তর্জাতিক ধনিমূলক বর্ণমালা প্রয়োগে সহায়তা প্রদান।

৫. **কোর্সের বিষয়সমূহ**

শিক্ষণ ঘণ্টা

ইউনিট ১: ভাষার ধারণা

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শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষার প্রকৃতি ও বৈশিষ্ট্য ব্যাখ্যা করতে পারবে
- খ. বাংলাদেশ ও বাঙালি জাতির বিবর্তনের ইতিহাস বর্ণনা করতে পারবে
- গ. বাংলা ভাষার বিবর্তনের ইতিহাস বর্ণনা করতে পারবে

বিষয়বস্তু

- ভাষা: প্রকৃতি ও বৈশিষ্ট্য
- বাংলাভাষা: ইতিহাসের ধারা
 - প্রাচীন বঙ্গ, বাঙালি জাতি
 - বাংলা ভাষার বংশাবলি

ইউনিট ২: মাতৃভাষা ও বাংলা ভাষারীতি

৪

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. মাতৃভাষার ধারণা এবং শিক্ষায় মাতৃভাষার ব্যবহার ব্যাখ্যা করতে পারবে
- খ. সাধু ও চলিতরীতির ধারণা ও বৈশিষ্ট্য ব্যাখ্যা করতে পারবে
- গ. বাংলার বিভিন্ন ভাষারীতি বিশ্লেষণ করতে পারবে

বিষয়বস্তু

- মাতৃভাষা
- শিক্ষায় মাতৃভাষার গুরুত্ব
- বাংলা ভাষারীতি: সাধু ও চলিত
 - বৈশিষ্ট্য, পার্থক্য, মিশ্রণের কারণ, প্রতিকারের উপায়
- মানভাষা, উপভাষা, আঞ্চলিকভাষা, লোকভাষা, অপভাষা

ইউনিট ৩: ভাষার মৌল উপাদান: ধ্বনি

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শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ধ্বনি ও ধ্বনিবিজ্ঞানের ধারণা, প্রকৃতি ও শ্রেণিবিভাগ বর্ণনা করতে পারবে
- খ. ধ্বনি উৎপাদনে বাগযন্ত্রের ভূমিকা ব্যাখ্যা করতে পারবে
- গ. স্বরধ্বনি ও ব্যঞ্জনধ্বনি উচ্চারণরীতি-পদ্ধতি ব্যাখ্যা করতে পারবে
- ঘ. আন্তর্জাতিক ধ্বনিমূলক বর্ণমালা প্রয়োগ করতে পারবে

বিষয়বস্তু:

- ধ্বনি ও ধ্বনিবিজ্ঞান: ধারণা, প্রকৃতি ও শ্রেণিবিভাগ
- বাগযন্ত্র সম্পর্কে ধারণা: বায়ুপ্রবাহ কৌশল, স্বরযন্ত্র
- ধ্বনি প্রকরণ: স্বরধ্বনি ও ব্যঞ্জনধ্বনি
— বৈশিষ্ট্য, উচ্চারণস্থান, রীতি ও পদ্ধতি
- স্বরধ্বনি ও ব্যঞ্জনধ্বনির উচ্চারণের নিয়ম
- আন্তর্জাতিকধ্বনি ও ধ্বনিমূলক বর্ণমালা

ইউনিট ৪: ভাষার মৌল উপাদান: শব্দ, বাক্য ও অর্থ

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শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. বাংলা শব্দের উৎস, গঠন প্রকৃতি ও শ্রেণিবিন্যাস বিশ্লেষণ করতে পারবে
- খ. বাংলা বাক্য গঠন প্রকৃতি ও শ্রেণিবিন্যাস বর্ণনা করতে পারবে
- গ. মীড়, শব্দোচ্চতা, শ্বাসাঘাত ও ছেদচিহ্নের যথার্থ প্রয়োগ করতে পারবে
- ঘ. বাগার্থের ধারণা ব্যাখ্যা করতে পারবে

বিষয়বস্তু:

- বাংলা শব্দ সম্ভার:
 - উৎস, গঠন প্রকৃতি ও শ্রেণি
 - দ্বিরুক্তশব্দ, অনুকারশব্দ, সমার্থ শব্দ, বিপরীতশব্দ, প্রতিশব্দ
- বাক্য ও অর্থ প্রকরণ:
 - বাক্যে পদ সংস্থাপনার ক্রম ও প্রয়োগবিধি
 - বাক্য ও তার বিভিন্নরূপ পরিবর্তন
 - মীড় (Pitch), শব্দোচ্চতা (Loudness), শ্বাসাঘাত (Stress), ছেদচিহ্ন (Punctuation marks)
- বাগার্থ: শব্দ ও বাক্য

ইউনিট ৫: বাংলা বানান

৯

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. কলিকাতা বিশ্ববিদ্যালয়, জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড এবং বাংলা একাডেমি প্রণীত বানানরীতি প্রয়োগ করতে পারবে;
- খ. বাংলা বানানঘটিত সমস্যা ও প্রতিকারের উপায় বর্ণনা করতে পারবে।

বিষয়বস্তু:

- বাংলা বানানের বিভিন্ন রীতি
 - কলিকাতা বিশ্ববিদ্যালয় প্রবর্তিত বাংলা বানানের নিয়ম
 - জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড - এর বানানরীতি
 - বাংলা একাডেমি প্রণীত বাংলা বানানরীতি
- বৈশিষ্ট্য, বানানঘটিত সমস্যা ও প্রতিকারের উপায়

ইউনিট ৬: ব্যবহারিক

শিখনফল

ব্যবহারিক অনুশীলনের মাধ্যমে শিক্ষার্থীরা

১. ধ্বনির শুদ্ধ উচ্চারণ করতে পারবে
২. মীড়, শব্দোচ্চতা, শ্বাসাঘাত ও ছেদচিহ্ন অনুসরণ করে যথার্থ প্রয়োগ করতে পারবে
৩. নির্ভুল বাক্য গঠন করতে পারবে
৪. বাংলা বানানরীতি অনুশীলন ও নির্ভুল প্রয়োগ করতে পারবে
৫. আন্তর্জাতিক ধ্বনিমূলক বর্ণমালা প্রয়োগ করতে পারবে

বিষয়বস্তু

মৌখিক (উচ্চারণ) ও লিখিত (বানান/ IPA) অনুশীলন:

- উচ্চারণ
- মীড়
- শব্দোচ্চতা, শ্বাসাঘাত ও ছেদচিহ্ন মেনেপড়া
- বানান
- আন্তর্জাতিকধ্বনি ও ধ্বনিমূলকবর্ণমালা/ IPA.

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
- খ. বক্তৃতা
- গ. উপস্থাপনা
- ঘ. অংশগ্রহণ
- ঙ. প্রশ্নোত্তর
- চ. দলীয় কাজ

৭. এ্যাসাইনমেন্ট

ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. ব্যবহারিক
- ঙ. চূড়ান্ত পরীক্ষা

৯. সহায়ক গ্রন্থসমূহ

অশোক মুখোপাধ্যায় (১৯৯৫), সংসদ ব্যাকরণ অভিধান, কলকাতা: সাহিত্য সংসদ।
 আবুল কালাম মনজুর মোরশেদ (২০০২), আধুনিক ভাষাতত্ত্ব, ঢাকা: মণ্ডলা ব্রাদার্স।
 জীনাৎ ইমতিয়াজ আলী (২০০১), ধ্বনিবিজ্ঞানের ভূমিকা, ঢাকা: মণ্ডলা ব্রাদার্স।
 দীনেশ কুমার সরকার (১৩৭৮), বাংলা শেখার রূপরেখা, কলকাতা: বুক হাউস।
 নীহার রঞ্জন রায় (১৪১৬), বাঙ্গালীর ইতিহাস আদি পর্ব, কলকাতা: দে'জ পাবলিশিং।
 নরেন বিশ্বাস (২০০৩, ক), উচ্চারণ প্রসঙ্গ, ঢাকা: অনন্যা প্রকাশনী।
 নরেন বিশ্বাস (২০০৩, খ), বাংলা উচ্চারণ অভিধান (পরিমার্জিত ও পরিবর্ধিত দ্বিতীয় সংস্করণ), ঢাকা: বাংলা একাডেমি।
 বাংলা একাডেমি (২০১২), প্রমিত বাংলা বানানের নিয়ম (১ম ও ২য় খণ্ড), ঢাকা: বাংলা একাডেমি।
 মনসুর মুসা (সম্পাদিত) (২০০৪), বাংলাদেশ, ঢাকা: আগামী প্রকাশনী।
 মুহম্মদ আবদুল হাই (১৯৮৫), ধ্বনিবিজ্ঞান ও বাংলা ধ্বনিতত্ত্ব, ঢাকা: মল্লিক ব্রাদার্স।

মাহবুবুল আলম (২০০৬), *বাংলা বানান ও ভাষারীতি*, ঢাকা: খান ব্রাদার্স অ্যান্ড কোম্পানি।
মাহবুবুল হক (২০০৮), *বাংলা বানানের নিয়ম (সপ্তম মুদ্রণ)*, ঢাকা: সাহিত্য প্রকাশ।
মুহম্মদ শহীদুল্লাহ (১৯৭৩), *বাংলা ভাষার ইতিবৃত্ত*, ঢাকা: রেনেসাঁ প্রিন্টার্স।
রফিকুল ইসলাম (২০০২), *ভাষাতত্ত্ব*, ঢাকা: শিখা প্রকাশনী।
রবীন্দ্রনাথ ঠাকুর (১৯৩৮), *বাংলা ভাষা পরিচয়*, কলকাতা: বিশ্ব ভারতী গ্রন্থন বিভাগ।
রামেশ্বরশ* (১৪১৯), *সাধারণ ভাষাবিজ্ঞান ও বাংলা ভাষা (তৃতীয় সংস্করণ)*, কলকাতা: পুস্তক বিপণি।
শিশির কুমার দাস (১৯৯২), *ভাষা জিজ্ঞাসা*, কলকাতা: প্যাপিরাস।
সুকুমার বিশ্বাস (১৯৬৮), *ভাষা-বিজ্ঞান পরিচয়*, কলকাতা: জিজ্ঞাসা।
সুকুমার সেন (২০০১), *ভাষার ইতিবৃত্ত (অষ্টম মুদ্রণ)*, কলকাতা: আনন্দ প্রকাশনী।
সত্য গোপাল মিশ্র (১৯৯৪), *বাঙলা পড়ানোর রীতি ও পদ্ধতি*, কলকাতা: সোমা বুক এজেন্সী।
সুনীতিকুমার চট্টোপাধ্যায় (১৯৯৬), *ভাষা-প্রকাশ বাংলা ব্যাকরণ*, কলকাতা: কলকাতা বিশ্ববিদ্যালয়।
সুভাষ ভট্টাচার্য (২০০০), *বাঙালির ভাষা*, কলকাতা: আনন্দ পাবলিশার্স প্রাইভেট লিমিটেড।
হুমায়ুন আজাদ (সম্পাদিত) (১৯৮৪), *বাঙলা ভাষা*, ঢাকা: আগামী প্রকাশনী।

১. Course Number: ACC 102

Course Title: ভাষা দক্ষতা (Language Skills)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

ভাষা দক্ষতা কোর্সটি শিক্ষা (সম্মান) শ্রেণির একটি আবশ্যিক বিষয়। কোর্সের লক্ষ্য মাধ্যমিক স্তর পার হয়ে আসা শিক্ষার্থীদের শোনা, বলা, পড়া ও লেখা এই চারটি ভাষা দক্ষতার বিকাশ এবং ব্যবহারিক/প্রায়োগিক ক্ষেত্রে তাদের ভাষা জ্ঞান ও রচনামূলক উন্নতি বিধান।

৪. কোর্সের উদ্দেশ্য

১. ভাষা দক্ষতার ধারণা এবং এর অনুশীলনে সহায়তা প্রদান।
২. উচ্চারণ, বাচনভঙ্গী, লিখনশৈলী এবং ভাষাবোধ উন্নতকরণ।
৩. ভাষা জ্ঞান ও রচনামূলক সম্পর্কে অবহিতকরণ এবং অনুশীলন।
৪. মাতৃভাষাকে জীবনের সর্বক্ষেত্রে নির্ভুল এবং কার্যকরভাবে প্রয়োগ করতে উদ্বুদ্ধ ও সহায়তাকরণ।

৫. কোর্সের বিষয়সমূহ

শিক্ষণ ঘণ্টা

ইউনিট ১: ভাষা দক্ষতা

২

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা দক্ষতার ধারণা ও গুরুত্ব ব্যাখ্যা করতে পারবে
- খ. ভাষা দক্ষতা শ্রেণিবিভাগ ব্যাখ্যা করতে পারবে

বিষয়বস্তু:

- ভাষা দক্ষতা: ধারণা, শ্রেণি ও গুরুত্ব
- ভাষা দক্ষতাসমূহের আন্তঃসম্পর্ক

ইউনিট ২: ভাষা দক্ষতা: শোনা

৫

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা দক্ষতা শ্রবণের ধারণা, বৈশিষ্ট্য, গুরুত্ব, শ্রেণিবিভাগ ব্যাখ্যা করতে পারবে
- খ. শ্রবণ প্রতিবন্ধকতা ও শ্রবণ দক্ষতা বৃদ্ধির কৌশল ব্যাখ্যা করতে পারবে

বিষয়বস্তু:

- শোনা: ধারণা, বৈশিষ্ট্য, গুরুত্ব ও উপযোগিতা
- শোনা: প্রকারভেদ
- শ্রবণ প্রতিবন্ধকতা ও প্রতিকারের উপায়
- শোনা দক্ষতার অনুশীলন ও বৃদ্ধির কৌশল
- শোনা দক্ষতার মূল্যায়ন

ইউনিট ৩: ভাষা দক্ষতা: বলা

৫

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা দক্ষতা বলার ধারণা, বৈশিষ্ট্য ব্যাখ্যা করতে পারবে
- খ. ভাষা দক্ষতা বলার গুরুত্ব ও উপযোগিতা বর্ণনা করতে পারবে
- গ. বলার প্রকারভেদ বর্ণনা করতে পারবে
- ঘ. বলার দক্ষতা বৃদ্ধির কৌশল ব্যাখ্যা করতে পারবে
- ঙ. মৌখিক অনুশীলন আবৃত্তি, অভিনয়, উপস্থাপন, সঞ্চালন, গল্প বলা, সাক্ষাৎকার, বর্ণনা ও বিতর্ক করতে পারবে

বিষয়বস্তু:

- বলা: ধারণা, বৈশিষ্ট্য, গুরুত্ব ও উপযোগিতা
- বলা'র প্রকারভেদ: আনুষ্ঠানিক বলা ও অনানুষ্ঠানিক বলা
- বলা'র দক্ষতা বৃদ্ধির কৌশল
- মৌখিক অনুশীলনরীতি: আবৃত্তি, অভিনয়, উপস্থাপন, সঞ্চালন, গল্প বলা, সাক্ষাৎকার, বর্ণনা ও বিতর্ক
- বলা দক্ষতার মূল্যায়ন

ইউনিট ৪: ভাষা দক্ষতা: পড়া

শিখনফল:

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. পড়া'র ধারণা, বৈশিষ্ট্য, গুরুত্ব ও উপযোগিতা ব্যাখ্যা করতে পারবে
- খ. পড়া'র প্রকারভেদ উল্লেখ করতে পারবে
- গ. পড়া কার্যকর করার কৌশল বর্ণনা করতে পারবে
- ঘ. পাঠ দক্ষতা বৃদ্ধির কৌশল ব্যাখ্যা করতে পারবে
- ঙ. পঠনে প্রতিবন্ধকতা ও প্রতিকারের উপায় চিহ্নিত করতে পারবে
- চ. যে কোনো পাঠের বিষয়ে নির্ভুলভাবে পড়তে পারবে
- ছ. সংশ্লিষ্ট পাঠের বিষয় বিশ্লেষণ করতে পারবে

বিষয়বস্তু:

- পড়া: ধারণা, বৈশিষ্ট্য, গুরুত্ব ও উপযোগিতা
- পড়ার প্রকারভেদ: সরব ও নীরবপাঠ
 - পাঠের উপ-দক্ষতা: বিস্তৃতপাঠ, নিবিড়পাঠ, চর্চনা ও স্বাদনাপাঠ, উপলব্ধির জন্য পাঠ, বিশ্লেষণধর্মী পাঠ
- পড়া কার্যকর করার কৌশল
- পাঠ ও আবৃত্তি: গুরুত্ব, পার্থক্য, প্রকারভেদ ও অনুশীলন
- পাঠে বানান ও উচ্চারণের অনুশীলন
 - গদ্য ও পদ্য পাঠ
 - অভিধানের ব্যবহার
- পড়া দক্ষতার মূল্যায়ন

ইউনিট ৫: ভাষা দক্ষতা: লেখা

শিখনফল:

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. লেখা'র ধারণা, গুরুত্ব ও উপযোগিতা ব্যাখ্যা করতে পারবে
- খ. বিভিন্ন প্রকার লেখা'র বৈশিষ্ট্য, পদ্ধতি ও কৌশল বর্ণনা করতে পারবে
- গ. পাদটীকা, নির্ঘণ্ট ও গ্রন্থপঞ্জি ব্যবহার নিয়মাবলি ব্যাখ্যা করতে পারবে
- ঘ. লেখা দক্ষতার মূল্যায়ন ব্যাখ্যা করতে পারবে

বিষয়বস্তু:

- লেখা: ধারণা, গুরুত্ব ও উপযোগিতা
- লেখার প্রকারভেদ, বৈশিষ্ট্য, পদ্ধতি ও কৌশল
- পাদটীকা, নির্ঘণ্ট, গ্রন্থপঞ্জি প্রণয়ন
- লেখা দক্ষতার মূল্যায়ন

ইউনিট ৬: ভাষা ও রচনাশৈলী

শিখনফল:

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. বাংলার বিভিন্ন ভাষারীতির বৈশিষ্ট্য ব্যাখ্যা করতে পারবে
- খ. বিভিন্ন ভাষারীতির তুলনা করতে পারবে

বিষয়বস্তু:

- সাহিত্যের ভাষা
- বিজ্ঞানের ভাষা
- সমাজবিজ্ঞানের ভাষা
- শিক্ষাবিজ্ঞানের ভাষা
- ব্যবসা-বাণিজ্যের ভাষা
- সংবাদপত্রের ভাষা
- গবেষণার ভাষা

ইউনিট ৬: ব্যবহারিক

শিখনফল:

ব্যবহারিক অনুশীলনের মাধ্যমে শিক্ষার্থীরা

- ক. দৈনন্দিন জীবনে শোনা দক্ষতার প্রয়োগ করতে পারবে
- খ. বিভিন্ন পরিস্থিতিতে কার্যকরভাবে মৌখিক যোগাযোগ স্থাপন করতে পারবে
- গ. বিভিন্ন কৌশল অবলম্বনে পড়া দক্ষতার প্রয়োগ করতে পারবে
- ঘ. লেখার মাধ্যমে জীবনের বহুমুখী প্রয়োজন ব্যক্ত করতে পারবে

বিষয়বস্তু:

- গবেষণাগারে শ্রবণ অনুশীলন এবং শুনে বোঝার অনুশীলন
- মৌখিক অনুশীলন: কথোপকথন, বর্ণনা, বিতর্ক, আবৃত্তি, গল্পবলা
- পাঠ অনুশীলন: আদর্শ পাঠ, বিভিন্ন ধরনের পাঠ অনুশীলন
- বিভিন্ন ধরনের লেখার অনুশীলন

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
- খ. বক্তৃতা
- গ. উপস্থাপনা
- ঘ. অংশগ্রহণ
- ঙ. প্রশ্নোত্তর
- চ. দলীয় কাজ

৭. এ্যাসাইনমেন্ট:

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি।

৮. মূল্যায়ন:

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. ব্যবহারিক
- ঙ. চূড়ান্ত পরীক্ষা

৯. সহায়ক গ্রন্থ

- নরেন বিশ্বাস (২০০৩), উচ্চারণ প্রসঙ্গ, ঢাকা: অনন্যা প্রকাশনী।
পরেণ ভট্টাচার্য (১৯৯৮), ভাষাবিদ্যা পরিচয়, কলকাতা: জয় দূর্গা লাইব্রেরি।
বাংলা একাডেমি (২০১২), প্রমিত বাংলা বানানের নিয়ম (১ম ও ২য় খণ্ড), ঢাকা: বাংলা একাডেমি।
মাহাবুবুল আলম (২০০৬), বাংলা বানান ও ভাষারীতি, ঢাকা: খান ব্রাদার্স অ্যান্ড কোম্পানি।
শামসুল হক (২০০৫), বাকশিল্প, ঢাকা: নবযুগ প্রকাশনী।
সুকুমার বিশ্বাস (১৯৬৮), ভাষা-বিজ্ঞান পরিচয়, কলকাতা: জিজ্ঞাসা।
সত্য গোপাল মিশ্র (১৯৯৪), বাঙলা পড়ানোর রীতি ও পদ্ধতি, কলকাতা: সোমা বুক এজেন্সী।

1. Course Number: ACC 105

Course Title: English (Compulsory)-One: Developing English Language Skills

2. Credit Hours: 4

3. Course Description

This is an introductory general English course compulsory for all the students of the programme. The content of this course is designed to strengthen students' ability in all four basic language skills. Extra emphasis is given to developing students' grammatical competence and writing ability. Following this line, the course is organized on linguistic principles providing guidelines for solving language problems at the undergraduate level.

4. Course Objectives

The objectives are to help learners to

- a. speak correct and appropriate English to perform various social functions, e.g., using formulas, giving directions, presenting advantages/ disadvantages of a point.
- b. comprehend the general meaning of lectures and classroom conversations.
- c. participate in class discussions and present their point of view.
- d. read books of moderate difficulties with comprehension following simple reading techniques like skimming and scanning.
- e. use correct forms of simple and compound sentence patterns in writing simple compositions.

5. Course Contents

Contact Hours

Unit 1: Grammar Review

8

Learning Outcomes

At the end of this unit learners will be able to

- a. form correct sentences of their own
- b. convert sentences from one form to another
- c. write sentences using different forms of tenses

Content

- Syntax-forms of sentences
- Conversion of sentences
(negative, question forms, question-tags, etc.
- Review of tenses-present, past, and future
(simple, continuous, perfect simple and continuous), verb patterns
- Direct-indirect speech
- Common mistakes in English

Unit 2: Developing new vocabulary

6

Learning Outcomes

At the end of this unit learners will be able to

- a. study and record vocabulary
- b. form words
- c. use words in context

Content

- Prefix, suffix; noun, verbs, and adjectives with the same forms, compound nouns, and compound adjectives
- Collocations (word patterns), verb or adjective + preposition, preposition +noun

- Phrasal verbs, idioms, and fixed expressions
- Make, do have, take, give, keep, break, catch, see
- Get: uses, and expressions; Go: uses and expressions
- Apologies, excuses, thanks
- Request, invitation, suggestions, opinions, agreeing, and disagreeing
- Specific situations and special occasions
- Connecting and linking phrases
- Vocabulary related to people, daily life, work, leisure and entertainment, communication and technology, and social concerns.

Unit 3: Listening

3

Learning Outcomes

At the end of this unit learners will be able to

- a. comprehend English speech spoken by native and nonnative speakers
- b. respond appropriately after listening to spoken English
- c. act accordingly after listening to recorded speech

Content

- Listening to authentic speech-comprehension (listening for headlines/topic sentences)
- Listening techniques, tasks, and assessment criteria

Unit 4: Speaking

6

Learning Outcomes

At the end of this unit learners will be able to

- a. make polite requests and offers
- b. accept and refuse an invitation
- c. participate in dialogues
- d. take part in an interview
- e. make presentation

Content

- Comprehending and using social English (use of formula)
- Making polite requests and offers
- Asking questions in a social situation
- Accepting and refusing an invitation
- Practising dialogues i.e. job interviews, telephone conversation, business dealings, ordering food, booking tickets
- Practising presentation with appropriate language and technology

Unit 5: Reading

6

Learning Outcomes

At the end of this unit learners will be able to

- a.read considerable complex text with ease
- b.recite poems with correct stress and intonation
- c.answer questions on the comprehension of the text

Content

Reading Authentic Texts for Prose and Poetry

- A Passage to India part – 1
E. M. Forster

- Poem: Gods-W. Whitman
- Adieu to a Soldier-W. Whitman
 - i. Reading for details (bottom-up model)
 - ii. Guessing meaning from context
 - iii. Reading for comprehension of the passage
 - iv. Reading for specific information
 - v. Use of a dictionary in reading.

Unit 6: Writing

5

Learning Outcomes

At the end of this unit learners will be able to

- a. write composition in English following proper punctuation
- b. write both formal and informal letters
- c. prepare complete resume / CV
- d. write different types of paragraphs and essays

Content

- Writing paragraphs: steps of writing, topic sentences, supporting ideas, cohesion, and coherence
- Describing charts and graphs using appropriate language and vocabulary
- Writing essays: descriptive, narrative and cause-effect essays
- Writing formal and informal letters/emails: Job application, joining letter, reference letters, letter of motivation, thank you letters, complaint letter, appreciation letter, ordering letter
- Writing a cover letter and resume looking at the requirements specified
- Mechanics of writing: punctuations (comma, semicolon, colon, dash, hyphen, quotation marks, parenthesis, apostrophe, contractions), capitalization, spelling, grammar, paragraphing, omission of words, abbreviations, use of quotations
- Writing academic and non-academic reports with references

Unit 7: Practicum

6

Learning Outcomes

At the end of this unit learners will be able to

- a. practice listening and speaking in various social situations
- b. describe places, persons and events

Content

- Listening with comprehension
- Speaking using social language, asking questions, and describing places, persons and events
- Reading with comprehension

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation
- f. Watching audio-visual materials
- g. Debate
- h. Project Method
- i. Role-Playing
- j. Reading text

7. Assessment

a. One In-course Examination	10
b. Semester Final Examination (MCQ + Essay)	60
c. Assignment/Presentation	5
d. Practical	25

8. Recommended Books, Journals, and Reports

Hornby, A. S. (1992). *Oxford learner's dictionary of current English*. Oxford University Press.

Leech, G., & Svartvik, J. (1975, Reprint 1993). *A communicative grammar of English*. Longman.

Rahman, M. F., & Kawser, M. A. (2007). *My English teacher*. Supreme Publishers.

Redman, S. (2003). *English vocabulary in use pre-intermediate and intermediate*. Cambridge University Press.

Soh, D. A. (1989). *Writing by doing: Learning to write effectively*, (2nd Edition). NTC Publishing Group.

Swan, M. (1989). *Basic English usage*. Oxford University Press.

Wren, P.C., & Martin, H. (1936, Reprinted 1995). *High school English grammar and composition*. S. Chand & Company Ltd. http://www.lrbusinessed.com/bcp/textbook_files/chapter05.pdf

Additional Books and Materials

Newspapers, Magazines, Journals, etc for authentic reading

A-V Equipments for listening and speaking practice.

1. Course Number: ACC 106

Course Title: English (Compulsory)-Two: Developing Advanced English Language Skills

2. Credit Hours: 4

3. Course Description

This is an advanced academic English course compulsory for all the students of the programme. This course is designed to further strengthen students' ability in all four basic language skills, especially in communicative use of the language. In addition to this, the course will provide ample opportunity to sharpen students' reading and writing ability required to meet academic demands at the undergraduate level.

4. Course Objectives

The objectives are to help learners to

- a. participate in class discussions and take an active part in performing skills like debates, panel discussion, extempore speeches, recitation.
- b. comprehend the general meaning and gist of lectures given by native English speakers.
- c. exhibit persuasive ability in class discussions and present their point of view clearly and expressively.
- d. master the reading techniques - skimming, reading for gist (top-down), scanning, reading for details (bottom-up), etc..
- e. use correct forms of compound and complex sentence patterns in writing compositions.
- f. write well-developed and logically connected paragraphs in producing persuasive and argumentative compositions.
- g. writing reports.

5. Course Contents

Contact Hours

Unit 1: Vocabulary in use

8

Learning Outcomes

At the end of this unit learners will be able to

- a. form new words combining different parts of speech
- b. identify the synonym and antonym of given words
- c. use homonyms, homophones in their writing
- d. use complex structures in their use of language

Content Vocabulary networks

- Types of vocabulary and use: general, academic, professionals, formal, informal
- Use of academic vocabulary: key nouns, key verbs, key adjectives, key adverbs, phrasal verbs in academic English, key quantifying expressions, idioms, appropriate transitions, word combination
- Word formation: words that go together: N + N/ N + V/ N + P etc.
- Synonyms, antonyms, homonyms, homophones

Unit 2: Grammar in Use

4

Learning Outcomes

At the end of this unit learners will be able to

- a. use complex structures in their use of language
- b. use modifiers in their sentences
- c. use cleft sentences
- d. use complements

Content

- Clauses
- Conditional and concessional sentences
- Condition/ reason and resultant clauses
- Special use of although, though, in spite of, despite, etc.
- Cleft sentences
- Post modifiers and pre modifiers
- Complements

Unit 3: Writing: Sub skills of higher level

6

Learning Outcomes

At the end of this unit learners will be able to

- a. write critical appreciation of literary pieces
- b. review books and films, academic articles
- c. use cohesive devices in their academic writing
- d. write reports both academic and non-academic

Content

- Writing critical appreciation on the selected literary pieces
- Evaluation of literacy pieces
- Books and /or film and academic articles review critically
- Writing essays: argumentative, exploratory, problem-solving with cohesion and coherence
- Academic writing practice
- Writing report with in-text and end-text references

Unit 4: Authentic reading from English literature

12

Learning Outcomes

At the end of this unit learners will be able to

- a. read texts critically
- b. read prose, poetry with ease
- c. answer questions from the text

Content

- The Diamond Necklace by Guy De Maupassant
- The Old Man and the Sea by Ernest Hemingway
- Romeo and Juliet by William Shakespeare
- Reviewing research literature
 - i. Reading for gist/ summarization/ main points (top-down model)
 - ii. Guessing meaning from context
 - iii. Reading for evaluation of message and style
 - iv. Critically review literature for an academic argument

Unit 5: Language Practice: Lab works

10

Learning Outcomes

At the end of this unit learners will be able to

- a. practice listening and speaking
- b. take part in group discussion
- c. do classroom presentation
- d. read authentic texts critically

Content

- Listening with comprehension
- Speaking: group discussion, telephone conversation, and class presentation
- Reading: authentic reading from English literature prose, poem, novel, and drama

6. Instructional Strategy

- a. Lecturer
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation
- f. Debate
- g. Review of Articles, Books/ films
- h. Role playing
- i. Reading text

7. Assessment

- | | |
|---|----|
| a. One In-course Examination | 10 |
| b. Semester Final Examination (MCQ + Essay) | 60 |
| c. Assignment/Presentation | 5 |
| d. Practical | 25 |

8. Recommended Books, Journals, and Reports

- Hornby, A. S. (1992). *Oxford learner's dictionary of current English*. Oxford University Press.
- Leech, G., & Svartvik, J. (1975, Reprint 1993). *A communicative grammar of English*. Longman.
- McCarthy, M., & O'dell, F. (2008). *Academic vocabulary in use: 50 units of academic vocabulary reference and practice; self-study and classroom use*. Ernest Klett Sprachen.
- Rahman, M. F., & Kawser, M.A. (2007). *My English teacher*. Supreme Publishers.
- Soh, D. A. (1989). *Writing by doing: Learning to write effectively*, (2nd Edition). NTC Publishing Group.
- Swan, M. (1989). *Basic English usage*. Oxford University Press.
- Wren, P. C., & Martin, H. (1936, Reprinted 1995). *High school English grammar and composition*. S. Chand & Company Ltd. http://www.lrbusinessed.com/bcp/textbook_files/chapter05.pdf

Additional Books and Material

- A – V Equipment for Listening and Speaking practice.
- Newspapers, Magazines, Journals, etc for authentic reading

1. Course Number: ACC 107

Course Title: Emergence of Independent Bangladesh

2. Credit Hours: 4

3. Course Description

The course is designed to provide the knowledge and understanding of historical background, and how Bangladesh emerged as an independent country through Liberation Movement and Liberation War. The attempts have been made to bring into focus on evolving of Bangali Nationalism and major events relating to Liberation Movement and Liberation War of Bangladesh and the leadership of Bangabandhu Sheikh Mujibur Rahman. It includes Language Movement, Education Movement, 6-Points Movement, Agartala Conspiracy Case, Student-Mass uprising, Suspend of the trial of Agartala Conspiracy Case and unconditional release of Sheikh Mujibur Rahman and awarded the title of 'Bangabandhu', 1970 Election and overwhelmed victory of Awami League, Declaration of Independence, Proclamation of Independence and formation the first government of the People's Republic of Bangladesh; events, participation and sacrifice of all spheres of people in the War. It also includes Genocide, War Crimes committed by brutal Pakistani Army and their Collaborators. Finally it offers the vents of Surrender of Pakistani Army and victory of Bangladesh, 16 December 1971, Bangabandhu's arrest (early hour on 26 March 1971), trial and world reaction while in captivity in Pakistan, release after the Victory and took over the leadership of new-born Independent Bangladesh. Significance of major events during the era of Bangabandhu Sheikh Mujibur Rahman, 1972-1975 has also been discussed.

4. Course Objectives

The objectives are to help learners to

- a. get an understanding of the introductory features of Bangladesh and her people.
- b. understand the way to create Pakistan and the inequality and exploitation in the state of Pakistan.
- c. conceptualise the background and significance of Bengali identity and development of nationalism.
- d. know and understand the major events of the Liberation Movement and the Liberation War as well as role of all spheres of people of Bangladesh and International community (specially India and the then Soviet Union) during liberation war and the emergence of the Independent Bangladesh in 1971.
- e. know about the brutality of Pakistani occupation army and their collaborators including Genocide, War Crimes, Mass killing, torturing mass people, fire to ashes the houses, mosques, temples, pagoda, hat-bazar, factories, school-colleges etc.
- f. understand and follow the spirit, patriotism and sacrifice the single and unparalleled leadership of Bangabandhu Sheikh Mujibur Rahman in the emergence of the independent Bangladesh.
- g. internalize and practice the spirit of the Liberation War of Bangladesh.
- h. understand the significance of major steps and programmes during the era of Bangabandhu Sheikh Mujibur Rahman, 1972-1975.

5. Course Contents

Contact Hours

Unit 1: Bengal under the British Rule

5

Learning Outcomes

At the end of this unit the learners will be able to

- introduction to British rule in Bengal
- explain the context and nature of the nationalist movement against the British rule in Bengal
- analyse the development of two-nations theory - India and Pakistan, and the inclusion of East Bengal in the part of Pakistan

Content

- Political involvement and interference of the Bengal under British Rule
- The partition of Bengal, 1905 and nationalist movements
- Lahore Resolution-1940.
- Partition of India in 1947

Unit 2: Pakistan: Inequality and Exploitation

7

Learning Outcomes

At the end of this unit the learners will be able to

- identify the disparities between Bangalis and West Pakistanis in the state system of Pakistan
- discuss the context and events of the Language Movement and analyse its consequences in consolidating Bangali nationalism
- estimate the roles of the major political parties and leaders in the politics of the then East Pakistan
- explain the causes of cultural exclusion
- discuss the nature of colonialism in East Pakistan
- analyse the disparities between Bangalis and West Pakistanis in the state system of Pakistan

Content

- Creation of Pakistan
- Disparities between East (Bengal) Pakistan and West Pakistan
- Political, administrative, economic, social and cultural inequality
- Causes of cultural exclusion
- Colonialism in East Pakistan

Unit 3: Development of Bengali Nationalism and Nationalist Movement

10

Learning Outcomes

At the end of this unit the learners will be able to

- discuss the context and events of the Language Movement
 - analyse its consequences in transforming Bangali ethnic-cultural identity to political identity and forming Bangali Nationalism
- explain the Education Movement of 1962
- analyse the significance of 6-points movements from autonomy to independence
 - the causes of Agartala Conspiracy case against Sheikh Mujibur Rahman and others and its immediate consequences
 - 11 points demand and Student Mass Uprising and unconditional release of Sheikh Mujibur Rahman
 - Awarded the title of 'Bangabandhu' and emerged as Single and Unparallel Leader of the People of East Pakistan (Bangladesh)

- discuss the election-1970 in Pakistan and unprecedented victory of Awami League and People's mandate for 6-Points and Bangabandhu

Content

- Language Movement, 1952
- United Front in Election 1954 and defeat of Muslim League in East Pakistan
- 1962: Education movement
- The 6-Points Movement and its significance
 - Agartala Conspiracy Case: Trail against Sheikh Mujibur Rahman and others and its immediate consequences
 - Student-Mass Uprising in 1969
 - Suspend of the trail of Agartala Conspiracy Case and unconditional release of Sheikh Mujibur Rahamn
 - Sheikh Mujibur Rahman was awarded the title of 'Bangabandhu'
- 1970 Election and overwhelmed victory of Awami League

Unit 4: Liberation War and Birth of Independent Bangladesh

10

Learning Outcomes

At the end of this unit the learners will be able to

- analyse Bangabandhu's non-cooperation movement
- evaluate the significance of Bangabondhu's historic 7 March (1971) speech
- explain the implementation of 'Operation Search Light' and commenting genocide by Pakistani army on 25 march night in 1971
- discuss the historic declaration of Independence of Bangladesh
- discuss the initial resistance and spread out of Liberation War throughout the country
- analyse the formation of the Government of Independent Bangladesh (Mujibnagar Government)
- describe how mass people were participated and cooperated in the Liberation War
- evaluate the roles of internal civil freedom fighter groups in attaining the independence of Bangladesh
- estimate the role of the Indian Government and people in the Liberation War of Bangladesh
- analyse the roles of the International World in the Liberation War of Bangladesh
- develop sensitivity about genocide, war crime and intellectual killing committed by Pakistani army and their local collaborators
- discuss the surrender of Pakistani Army on 16 December 1971 and victory of Bangladesh
- internalize and practice the spirit of Liberation War in day to day life
- explain the importance of introducing Bangladesh Constitution 1972

Content

- Unparalleled leadership of Bangabandhu Sheikh Mujibur Rahman:
 - Conspiracy of the Pakistan rulers and Bangabandhu's non-cooperation movement
 - The historic 7 March Speech
 - Operation Search Light: Genocide by Pakistani army
 - Initial resistance and spread out of the Liberation War
 - The Declaration of Independence of Bangladesh
- The Proclamation of Independence
 - Formation of Government of Independent Bangladesh (Mujibnagar Government)

- Liberation War and Mass participation
- Internal civil freedom fighter groups and their contributions
- Role of Indian Government and the people
- International community and the Liberation War
- Genocide, war crime and intellectual killing committed by Pakistani army and collaborators (Rajakar, Albadar, Al-Shams, Peace Committee, etc. and political parties including Jamat- e-Islami, Muslim League, Nizam-e-Islami, etc.)
- Surrender of Pakistani Army on 16 December 1971 and Victory of Bangladesh
- Spirit of the Liberation War
- Bangladesh Constitution 1972
- Reconstruction of new-born/independent Bangladesh

Unit 5: Bangladesh and Bangabandhu Sheikh Mujibur Rahman

8

Learning Outcomes

At the end of this unit the learners will be able to

- learn the biography of Bangabandhu Sheikh Mujibur Rahman
- internalize the qualities of the father of the nation by studying his biography
- know his political activities in student life
- evaluate his struggles and role as a political leader in uniting the whole nation and achieving the independence of Bangladesh
- estimate Bangabandhu's role for upholding human rights in local and international context

Content

- Biography of the Father of the nation Bangabandhu Sheikh Mujibur Rahman
- Join the political movement and political party
- Struggle, role and leadership of Bangabandhu to make his dream true
 - Establish Student Organization-Chhatro League
 - Establish Awami Muslim League
 - Language movement
 - United Front
 - Against Military rule
 - Six-points movement
- Prisoner life of Bangabandhu Sheikh Mujibur Rahman
- Unite the whole nation for achieving independence of the Bangali nation
- Traits of Bangabandhu: The Great Leader

6. Instructional strategies

- Lecture
- Discussion
- Question-answer
- Observation
- Debate
- Seminars
- Presentation

7. Assessment

a. Two In-course Examinations	15 × 2 = 30
b. Course Final Examination (MCQ + Essay)	20 + 40 = 60
c. Assignment/Presentation/Term paper/Report writing	10

8. Recommended Books, Journals and Articles

- Ahmad, K. (1970). *A Social History of Bengal*. Dacca: Progoti Publishers.
- Ahmad, K. (1975). *A socio political history of Bengal and the birth of Bangladesh*. Dacca: Inside Library.
- Amin, S. (1996). *The world of Muslim women in colonial Bengal, 1876-1939*. Brill Academic Publishers.
- Barkat, A. (2013). *Political Economy of Fundamentalism in Bangladesh*, Dhaka: PathokSomabesh.
- Bishwas, S. (2005). *Bangladesh Liberation War, Mujibnagar Government Documents, 1971*. Dhaka: Mawla Brothers.
- D' Costa, B. (2011). *Nationbuilding, Gender and War Crimes in South Asia*. London: Routledge.
- Dasgupta, A., Togawa, M. & Barkat, A. (2011). *Minorities and the State: Changing Social and Political Landscape of Bengal*. India: SAGE Publications. ISBN 9788132107668.
- Desai, A. R. (1949). *Social Background of Indian Nationalism*. Bombay: Oxford University Press [Indian Branch]
- Guhathakurta, M. & van Schendel, W. (2003). *The Bangladesh Reader: History, Culture, Politics*. Duke University Press.
- Halim, M. A. (2010). *Constitution, Constitutional Law and Politics: Bangladesh Perspective*. Dhaka: CCB Foundation.
- Hensher, P. (2013). *The war Bangladesh can never forget*. London: The Independent. Retrieved 2016-03-31.
- Hewitt, W. L. (2004). *Defining the Horrific: Readings on Genocide and Holocaust in the 20th Century*. Pearson Education.
- Huq, M. S. (1995). *Bangladesh in International Politics*. Dhaka: The University Press Limited.
- Islam, S. (1997). *History of Bangladesh 1704-1971 (Ed.), Vol. I, II & III*. Dhaka: Asiatic Society of Bangladesh.
- Jacob, J F R (1997). *Surrender at Dacca-Birth of a Nation*. Dhaka: The University Press Limited.
- Jahan, R. (1972). *Pakistan: Failure in National Integration*. Columbia University Press. ISBN 0-231-03625-6.
- Jahan, R. (2005). *Bangladesh Politics: Problems and Issues*. Dhaka: The University Press Limited.
- Karim, AKN (1980). *The Dynamics of Bangladesh Society*. Delhi: Vikas.
- Khan, M. A. (2006). *We've learnt nothing from history Pakistan: Politics and Military power*. Dhaka: The University Press Limited.
- Mascarenhas, A. (1986). *Bangladesh: A Legacy of Blood*. Hodder and Stoughton.
- Quaderi, F, Q. (1972). *Bangladesh Genocide and World Press*, Dhaka.
- Rashid, H, (2005), *Economic Geography of Bangladesh*, Dhaka: The University Press Limited.
- Salik, S. (1977). *Witness to Surrender*. Dhaka: The University Press Limited.
- Samuel T., William S. P. & Israel, W. C. (2004). *Century of Genocide: Critical Essays and Eyewitness Accounts*. Psychology Press.

Sen, R. (1987). *Political Elite in Bangladesh*. Dacca: South Asia Books.

Westergard, K. (1985). *State and rural society in Bangladesh: A study in relationship*.
XF2006260562.

- আখতারুজ্জামান, মোঃ (২০০৯). *বাংলাদেশের মুক্তিযুদ্ধ প্রেক্ষাপট ও ঘটনা (সম্পাদিত)*. ঢাকা বিশ্ববিদ্যালয়: বাংলাদেশ ইতিহাস পরিষদ।
- আলী, কর্ণেল শওকত. (২০১১). *সত্য মামলা, আগরতলা*, ঢাকা: প্রথমা প্রকাশন।
- আহমেদ, এ. এফ. সালাউদ্দিন. ও অন্যান্য. (১৯৯৬). *বাংলাদেশের মুক্তিযুদ্ধ ও অন্যান্য*, ঢাকা: মুক্তিযুদ্ধ গবেষণা কেন্দ্র।
- আহমেদ, তোফায়েল (২০১৭). *উনসত্তরের গণ-আন্দোলন ও বঙ্গবন্ধু*, ঢাকা: আগামী প্রকাশনী।
- ইমাম, এইচ. টি. (২০১২). *বাংলাদেশ সরকার ও ১৯৭১*, ঢাকা: বাংলা একাডেমী।
- ইমাম, জাহানারা (১৯৯৯). *একাত্তরের দিনগুলি (দ্বিংশতমমুদ্রণ)*. ঢাকা: সন্ধানী প্রকাশনী।
- ইসলাম, সিরাজুল (২০১৭). *বাংলাদেশের ইতিহাস ১৭০৪-১৯৭১ (সম্পাদিত)*. ১ম, ২য় ও ৩য় খন্ড. তৃতীয় সংস্করণ, ঢাকা: বাংলাদেশ এশিয়াটিক সোসাইটি।
- ওয়ালিউল্লাহ মোহাম্মদ ও শান্তা, শারমিন রহমান (২০১৪). *স্বাধীন বাংলাদেশের অভ্যুদয়ের ইতিহাস*, ঢাকা: কোরআন মহল।
- করিম, আবদুল (১৯৭৭). *বাংলার ইতিহাস সুলতানী আমল*. ঢাকা: বাংলা একাডেমী।
- করিম, আব্দুল (১৯৯৯). *বাংলার ইতিহাস মুসলিম বিজয় থেকে সিপাহী বিপ্লব পর্যন্ত [১২০০-১৮৫৭]*. ঢাকা: বড়াল প্রকাশনী।
- কামাল, কাজী আহমেদ. (২০১৫). *বঙ্গবন্ধু শেখ মুজিবুর রহমান ও বাংলাদেশের জন্ম*, ঢাকা: অক্ষরপত্র প্রকাশনী।
- খান, শামসুজ্জামান. (২০১৭). *বঙ্গবন্ধুর রাষ্ট্রচিন্তা ও বর্তমানবাংলাদেশ*, ঢাকা: বিজয় প্রকাশ।
- খান, রাওফরমান আলী. (২০১৭). *বাংলাদেশের জন্ম*, ঢাকা: দি ইউনিভার্সিটি প্রেস লিমিটেড।
- চৌধুরী, আবদুল মমিন, রহমান, মোকাদ্দেসুর ও আলম, আকসাদুল (২০০১). *উপমহাদেশ ও বাংলার ইতিহাস (আর্য সভ্যতা থেকে ১৫২৬)*. বিএ/বিএসএস প্রোগ্রাম (BHI-2301). বাংলাদেশ উন্মুক্ত বিশ্ববিদ্যালয়: স্কুল অব সোশাল সায়েন্স, হিউম্যানিটিজ এন্ড ল্যাংগুয়েজ।
- চৌধুরী, কবির. (২০১৬). *বঙ্গবন্ধু: জননায়ক থেকে রাষ্ট্রনায়ক*, ঢাকা: অবেষা প্রকাশন।
- চৌধুরী, র. আ. ম. উবায়দুল মোকতাদির. (২০১৩). *মানুষের নেতা*, ঢাকা: আনন্দ্য প্রকাশ।
- প্রথমা সম্পাদিত একাত্তরের চিঠি (২০০৬)।
- দারা, সাঈদ হাসান. (২০১৫). *অপারেশন সাচলাইট*, ঢাকা: অবেষা প্রকাশন।
- বঙ্গবন্ধুর স্বাধীনতা ঘোষণা: হাইকোর্টের ঐতিহাসিক রায় (২০১০). ঢাকা: সুবর্ণ।
- বিশ্বাস, সুকুমার (১৯৯৯). *মুক্তিযুদ্ধে রাইফেলস ও অন্যান্য বাহিনী*. ঢাকা: মাওলা ব্রাদার্স।
- ভট্টাচার্য, পিনাকী. (২০১৭). *মার্কিন ডকুমেন্ট বাংলাদেশের মুক্তিযুদ্ধ '৭১'*, ঢাকা: সূচীপত্র।
- ভট্টি, মাসুদা. (২০০৩). *বাঙ্গালীর মুক্তিযুদ্ধ-ব্রিটিশ দলিলপত্র*, ঢাকা: জোৎসনা প্রকাশন।
- মন্তাজ, সাহেদ. (২০১৮). *বাংলাদেশের মুক্তিযুদ্ধ ও বর্হিবিশ্ব*, ঢাকা: রাবেয়াবুকস।
- মুকুল. এম. আর. আখতার. (২০১৮). *চরমপত্র*, ঢাকা: অনন্যা।
- মোহাইমেন, এম. এ. (১৯৯৪). *ইতিহাসের আলোকে দেশ বিভাগ ও কায়েদে আযম জিন্নাহ*. ঢাকা: পাইওনিয়ার পাবলিকেশন্স।
- মামুন, মুনতাসির. (২০১৩). *বঙ্গবন্ধু কীভাবে আমাদের স্বাধীনতা এনেছিলেন*. ঢাকা: মাওলাব্রাদার্স।
- রহমান, শেখ মুজিবুর. (২০১৬). *অসমাপ্ত আত্মজীবনী*, ঢাকা: ইউনিভার্সিটি প্রেসলিমিটেড।
- রহমান, শেখ মুজিবুর. (২০১৭). *কারাগারে রোজনামা*, ঢাকা: বাংলা একাডেমি।
- মুরশিদ, গোলাম (২০০৯), *মুক্তিযুদ্ধ ও তারপর একটি নির্দলীয় ইতিহাস*, ঢাকা: প্রথমা প্রকাশন।
- রহিম, মুহাম্মদ আব্দুর ও অন্যান্য (২০০৩), *বাংলাদেশের ইতিহাস*, ঢাকা: নওরোজকিতাবিস্তান।
- রহিম, এম. এ. ((১৯৭৬). *বাংলার মুসলমানদের ইতিহাস (১৭৫৭-১৯৪৭)*. ঢাকা: নূর জাহান রহিম, হাউসিং এস্টেট।
- রশিদ, হারুন-অর. (২০০৩). *বাঙ্গালির রাষ্ট্রচিন্তা ও স্বাধীন বাংলাদেশের অভ্যুদয়*, ঢাকা: আগামী প্রকাশনী।
- রশিদ, হারুন-অর. (২০০৮). *৭ই মার্চের ভাষণ কেন বিশ্ব ঐতিহ্যের সম্পদ: বঙ্গবন্ধু মুক্তিযুদ্ধ বাংলাদেশ*, ঢাকা: অন্য প্রকাশ।
- রশিদ, হারুন-অর. (২০১৬). *‘আমাদের বাঁচার দাবী’: ৬ দফা’র ৫০ বছর*, ঢাকা: বাংলা একাডেমি।
- রশীদ, রফিকুর (২০১১). *অপারেশন মুজিবনগর*, ঢাকা: পাঞ্জেরী পাবলিকেশন্স লিঃ।

নিউটন, জুলফিকার. (২০১৮). বঙ্গবন্ধু ও বাংলাদেশ, ঢাকা: কথা সম্ভার।

নূর, আবদুন (১৯৯৩). মুক্তিযুদ্ধের চেতনা: প্রতিবাদ, গণতন্ত্র ও ন্যায়বিচার. ঢাকা: ইনস্টিটিউট অব সোস্যাল রিসার্চ এন্ড স্টাডিজ।

শাকিল, খালেদুর রহমান. (২০১৬). আন্তর্জাতিক সংবাদ মাধ্যমে আমাদের মুক্তিযুদ্ধ, ঢাকা: অঘোষা প্রকাশন।

সরকার, মোনায়েম. (২০০১). বাংলাদেশের সংক্ষিপ্ত ইতিহাস, ঢাকা: আগামী প্রকাশনী।

সরকার, মোনায়েম. (২০০৮). বঙ্গবন্ধু শেখ মুজিবুর রহমান: জীবন ও রাজনীতি (১ম খন্ড ও ২য় খন্ড), ঢাকা: বাংলা একাডেমি।

সরকার, যদুনাথ (২০১২). এ শর্ট হিস্টরি অব আওরঙ্গজেব (অনুবাদ: খসরু চৌধুরী). ঢাকা: ঐতিহ্য।

সালিম, আহমেদ. (১৯৯৮). পাকিস্তানের কারাগারে শেখ মুজিবের বন্দি জীবন, [অনু: মফিদুলহক]. ঢাকা: সাহিত্য প্রকাশ।

সিংহ, যশোবন্ত (২০০৯). জিন্না: ভারত - দেশভাগ- স্বাধীনতা (দ্বিতীয় মুদ্রণ) বাংলা বঙ্গানুবাদ. কলকাতা: আনন্দ পাবলিশার্স প্রাইভেট লিমিটেড।

হাসান, মঈদুল (১৯৯২). মূলধারা '৭১ (দ্বিতীয় সংস্করণ). ঢাকা: দি ইউভার্সিটি প্রেস লিমিটেড।

হোসেন, আবু মোঃ দেলোয়ার. ও উল্লাহ, রহমত, মোঃ (২০১৩). বঙ্গবন্ধুর মানবাধিকার দর্শন, ঢাকা: সাহিত্য প্রকাশ।

হোসেন, মেজর জেনারেল মোঃ সারোয়ার. (২০১৯). ১৯৭১: প্রতিরোধ, সংগ্রামবিজয়. ঢাকা: প্রিয়মুখ প্রকাশন।

হোসেন, সেলিনা. (১৯৮৭). ঊনসত্তরের গণ-আন্দোলন।

হোসেন, মোহাম্মদ জাহাঙ্গীর. (২০১২), বঙ্গবন্ধুর ভাষণ।

হোসেন, হামিদা. মহসিন, আমেনা ও হোসেন, সেলিনা. (২০১৮). একটি জাতির জন্ম: যৌনসহিংসা ও দায়মুক্তি, ঢাকা: ইউনিভার্সিটি প্রেস লিমিটেড।

1. Course Number: CT 110

Course Title: Introduction to Computer Applications and Concepts

2. Credit Hours: 4

3. Course Description

This technical course focuses on types and components of computers, concept of databases and networking. This course contains introductory knowledge on computer and its applications in education. The course includes the development of skills with the use of different kinds of applications software as well as using of Internet for educational purposes. Development of technological skills among the learners will be the main thrust of this course.

4. Course Objectives

The objectives are to help learners to

- a. be familiar with computer and its usages for academic purposes.
- b. know about architecture of computers.
- c. acquire skill in using Microsoft Office package for academic purpose.
- d. be acquainted with using E-mail and other Internet services.
- e. be able in maintaining the computer system in an efficient manner.

5. Course Contents

Contact Hours

Unit 1: Computers and their uses

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain types of computers
- b. explain the importance of computer in society

Content

- Computer and its type (Computer for individual users: Desktop computers, Workstation, Notebook, Tablet PC, Handheld PC, Smartphone, and Computer for organizations: Network server, Mainframe computer, Minicomputer, Supercomputer)
- Uses of Computers in different sectors (Home, Education, Business, Industry, Government, Healthcare)

Unit 2: Computer Architecture: Hardware and Software

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe various components of computer architecture
- b. identify and explain the computer hardware
- c. distinguish System Software and Application Software
- d. undertake security measures to protect computer and devices

Content

- Computer Architecture basics
- Computer hardware including Input, Processing, Output, Storage and Communication devices
- Computer Software including System and Application software (OS and others)
- VIRUS and Malware

Unit 3: Number Systems and Computer Codes

3

Learning Outcomes

At the end of this unit learners will be able to

- a. clarify different number systems
- b. do conversion of numbers among different systems

Content

- Data Representation and Number Systems: Decimal, Binary, Octal and Hexadecimal number system
- Conversion of numbers between different systems

Unit 4: Logic Gate

3

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different types of Logic Gate and Circuit
- b. express circuit using literals/variables

Content

- Different types of Logic Gate and Circuit
- Expression of circuit using literals/ variables
- Use of Boolean Algebra for search optimization

Unit 5: Data and Database

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of Database
- b. design database for academic purposes

Content

- Definition of Data and Information
- Concepts of Field and Record to create Database using Table
- Data validation and data verification
- Entity-Relationship Diagram (ERD)
- Data Flow Diagram (DFD)
- Database Management System (DBMS)
- Comparison between DBMS and File Management System
- Cloud storage (Google Drive, Dropbox, Amazon Web Services)

Unit 6: Fundamentals of Computer Networking

3

Learning Outcomes

At the end of this unit learners will be able to

- a. describe Networks and Data Communication
- b. explain various topologies for networking
- c. explain Network Hardware

Content

- Networks and Data Communication
- LAN, MAN, and WAN
- Network Topology

- Network Protocol and Services
- Network Hardware and Media
- Hubs, Bridges, Routers and Gateways

Unit 7: Practical

Learning Outcomes

At the end of this practical unit learners will be able to

- do Basic operations and troubleshooting of computer
- apply online resources to teaching-learning
- apply Microsoft Office Packages in Education, Research and Training

Lab 1: Basics of Computer and Troubleshooting

2

Content

- Install/manage System software and Application software (MS Office)
- Basic Troubleshooting

Lab 2: MS Office Software in Education

10

Content

- Microsoft Word focusing on Long Document Management, References, Citation, Bibliography, Footnote, Automated Table of Contents etc.
- Microsoft Excel focusing on Educational Institution Management and Research (Numerical and Graphical Analysis)
- Microsoft Power Point focusing on Education and Training (Hyperlink, Video Clip extract, Animation, Audio Clip Insert etc.), Uploading presentation as educational resources
- Microsoft Access focusing on creation of students' database and query of required data

Lab 3: Internet and Data Communication

4

Content

- Connection to the Internet (Broadband, Wi-Fi, Modem, Hotspot etc.), Educational Web resources surfing, Creating Group Mail
- Social Media in Education (Facebook, Twitter, Blog, Wiki etc.), Sharing knowledge through YouTube
- Audio-visual communication for education purposes through Zoom/Google Meet/Microsoft Teams

6. Instructional Strategies

- Lecture
- Question - Answer
- Demonstration
- Investigation in individual and group work
- Assignment
- Class Participation

7. Assessment

- | | |
|---|-----------|
| a. One In-course Examination | 10× 1= 10 |
| b. Course Final Examination (MCQ + Essay) | 20+40= 60 |
| c. Assignment/Project | 5 |
| d. Practical | 25 |

8. Recommended Books, Journals and Reports

- Banu, S. (2000). *Computer and Internet: Their Educational Uses*. Dhaka: Papyrus.
- Lambert, J. & Frye, C. (2015). *Microsoft Office 2016: Step by Step*. London: Pearson Education.
- Norton, P., (2005). *Introduction to Computers*. New York: McGraw-Hill.
- Parsons, J. J. (2016). *New Perspectives on Computer Concepts 2018: Comprehensive* (19th Edn.). Boston, MA: Cengage Learning.
- Salam, M, A. (2019). *Information Communicaation Technology in Education: Today and Tommorrow*. Dhaka: SAM Press and Publications.
- Standard Books will be followed on both Theory and Lab Classes. There are several books and interactive CDs on ICT and their implementation in Education, Database and Multimedia Systems, Internet, E-Mail, and Web designing. So, students are advised to collect and read as many books as they can. Here is given a list of some standard books for collection.
- Walkenbach, J., Wempen, F., Alexander, M., & Kuseika, D. (2013). *Microsoft Office 2013 Bible*. Hoboken, NJ: Willey.

1. Course Number: PC 111

Course Title: Introduction to Education

2. Credit Hours: 4

3. Course Description

This is a basic course in education. The course is structured in such a way that helps students develop a comprehensive understanding of the core and common concepts of 'education' along with its relevant terminologies, characteristics, components and impacts. Education has emerged as a discipline. The efficacy of education as a discipline for making an impact on the development of a civil, democratic and knowledge based society has been highlighted.

4. Course Objectives

The objectives are to help learners to

- a. develop understanding of the concept and visions of the term 'Education' and other commonly used educational terminologies and their interrelationship.
- b. acquaint with the concepts, characteristics, and components of the basis of education and its importance as human rights.
- c. understand the aims, purposes and functions of education and its role in human resource development and in developing a civil and democratic society.
- d. comprehend understand of education as a discipline.

5. Course Contents

Contact Hours

Unit 1: Concept of Education

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the basic concepts and definitions of 'Education'
- b. identify different modes of education

Content

- Origins and meaning of the word 'Education', and 'Shikkha'
- Broad and specific concept of education
- Definition of Education: various perspectives and contexts
- Modes of education: Informal, Nonformal and Formal

Unit 2: Terminologies in Education

8

Learning Outcomes

At the end of this unit learners will be able to

- a. define different terminologies in education
- b. explain equality ,equity, emergencies and inclusion in education

Content

- Literacy and functional literacy, Basic Education etc.
- General education, professional education, religious education, technical and Vocational education etc.
- Universal education, compulsory education, education in emergency (EiE) etc.
- Education for all, mass education, Second chance education, Continuing education, Life-long education etc.

- Catchment area, net enrolment and gross enrollment, dropout, repetition, cycle completion, transition etc.
- Curriculum and syllabus
- pedagogy, Andragogy and Heutagogy etc.
- Gender equality, equity and inclusion in education
- Special education, integration and inclusive education
- Value education, citizenship education etc

Unit 3: Aims, Purposes and Functions of Education

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain aims and purposes of education
- b. define functions of education

Content

- Aims of education: the idealistic way, realistic and pragmatic approaches
- Objectives of education: acquisition of knowledge, development of attitude, values, ideals, skill: mental and psychomotor
- Education for individual development and social efficiency, developing economically productive skills, raising consciousness, promoting social understanding and inculcating nationalism and patriotism, internationalism
- Education for civil and democratic and inclusive society
- Education for Global Citizenship (EGC/GCE)
- National and International Education Policy, Law, Acts

Unit 4: Maxims and Principles of Learning

7

Learning Outcomes

At the end of this unit learners will be able to

- a. explain and interpret maxims of education
- b. explain and interpret principles of education

Content

Maxims

- Simple to complex,
- Known to unknown,
- Whole to parts
- Particular to general,
- Inductive to deductive
- Concrete to semi-concrete to abstract
- Definite to indefinite
- Analysis to synthesis
- Convergent and divergent thinking

Principles of Learning

- Learning by doing/activity based learning
- Learning through joyful experience
- Child centric learning
- Use of life experience in learning
- Teacher-pupil rapport in learning
- Learning how to learn than what to learn

Unit 5: Components of Education System

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different components of education
- b. analyse the interrelationship among different factors of education
- c. evaluate the role of school in the society

Content

- Learner: innate endowments, social and cultural environment
- Teacher: personality, education, role, responsibilities and commitment
- Curriculum: meaning, significance, appropriateness, co-curricular activities
- Institution: origin, function, school as a society, management and leadership
- Educational environment: Natural environment, physical facilities, learning environment, responding to diversity

Unit 6: Education as a Discipline

7

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the connotation of discipline(s)
- b. describe the structure of discipline(s)
- c. justify education as a discipline

Content

- Concept and definition of discipline
- Configuration of education as a discipline
- Scope of education

Level wise: Primary education, Secondary education, Tertiary education

Area wise: Language education, Social Science education, Humanities education, Arts and Craft education, Science education, Special education, Technology education, Vocational and Technical education, Business education, Administration and leadership in education, Supervision and guidance, Curriculum and instructional material, Non-formal and Lifelong education, Teacher education, Research in education, and Religious education etc.

6. Instructional Strategies

- a. Lecture
- b. Guided Discussion
- c. Project, community activities
- d. Review of Articles, Books/Films
- e. Presentation

7. Assignment

- Reflective assignment on education related issue

8. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

9. Recommended Books, Journals and Reports

- Ahmed. M. (1991). *Basic Education: Lessons from India and China*.
- BNFE. (2021-in press). *Illiteracy Eradication and Development: The Role of NFE in the 21st Century Bangladesh*. Dhaka, Bangladesh: BNFE
- Ehlerns, H. & Lee, G. C. (1966). *Crucial Issues in Education*. New York: Holt, Rinehart & Winston.
- Fullen, M. (1991). *The New Meaning of Educational Change*. London: Cassells.
- Kakkar. S. B. (1995). *Changing Perspectives in Education*. Vikas Publishing House Pvt. Ltd.
- Kunu, D. & Majumdar, T. R. (1990). *Modern Principles of Education*, Calcutta: The World Press Private Limited.
- National Education Law -2021, Bangladesh (Draft)
- Nonformal Education Law-2014, Bangladesh
- Rogers, A. (2005). *Non-formal education: Flexible schooling or participatory education*. Hong Kong: Kluwer Academic Publishing.
- UNESCO. (1995). *Learning: The Treasure within*. Paris.
- UNESCO, EFA Global Monitoring Reports 2002-2009.
- World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs, EFA Forum Secretariat, UNESCO, Paris.
- উপানুষ্ঠানিক শিক্ষানীতি-২০০৬
- খাতুন, শরীফা (ভাষান্তর) (২০০৫), *সমারহিলঃ শিক্ষার এক অভিনব দিগন্ত*, ঢাকা: শিক্ষাবার্তা প্রকাশনা।
- ঘোষ, অমরনাথ ও রায়, ঋতেন্দ্র কুমার (১৯৭৯), *শিক্ষাবিজ্ঞান*, কলিকাতা: ব্যানার্জী পাবলিশার্স।
- জাতীয় শিক্ষা কমিশন রিপোর্টসমূহ।
- জাতীয় শিক্ষানীতি- ২০০০, ২০১০।
- মালেক, আব্দুল ও অন্যান্য (২০০৭), *শিক্ষা বিজ্ঞান ও বাংলাদেশে শিক্ষা*, ঢাকা: বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন।
- রহমান, হিদ্দিকুর ও অন্যান্য (১৯৯৩), *শিক্ষানীতি*, ঢাকা: প্রাথমিক শিক্ষা অধিদপ্তর।
- লতিফ, আবু হামিদ (২০১৩) *উপানুষ্ঠানিক শিক্ষা ধারা- বাংলাদেশ ও আন্তর্জাতিক পরিপ্রেক্ষিতে*, লেখক ও প্রকাশক, ঢাকা।
- লতিফ, আবু হামিদ (২০০৭) *শিক্ষা শিখন শিক্ষণ প্রশিক্ষণ (Education Learning Teaching Training)*, লেখক ও প্রকাশক, ঢাকা।
- লতিফ, আবু হামিদ (২০০৩) *শিক্ষা উন্নয়ন পরিকল্পনা*, ঢাকা: প্যাপিরাস।
- লতিফ, আবু হামিদ (২০০১), *বাংলাদেশের উপানুষ্ঠানিক শিক্ষা*, ঢাকা।
- লতিফ, আবু হামিদ (১৯৯৫), *উপানুষ্ঠানিক শিক্ষা ও সমাজ শিক্ষা*, ঢাকা।
- শরফুদ্দিন, আব্দুল্লাহ-আল মুতী (১৯৯৭), *আমাদের শিক্ষা কোন পথে*, ঢাকা: ইউনিভার্সিটি প্রেস লি:।
- শিক্ষা অধিকার সহায়িকা, (2005), Dhaka: Action Aid, Bangladesh.
- সালাম, এম, এ, (২০১৯) *গৃহপালিত শিক্ষা (আনুষ্ঠানিক শিক্ষা)*, ঢাকা: স্যাম প্রেস এন্ড পাবলিকেশন্স
- সালাম, এম, এ, (২০১৯) *শিক্ষার নমনীয় খিড়কী (উপানুষ্ঠানিক ও জীবনব্যাপী শিক্ষা)*, স্যাম প্রেস এন্ড পাবলিকেশন্স, ৩৮, বাংলা বাজার, ঢাকা-১১০০।
- হোসেন আরা বেগম ও মো: আবদুস সালাম (২০০২), *আনুষ্ঠানিক ও উপানুষ্ঠানিক শিক্ষা: বাংলাদেশ*, মুক্তি প্রিন্টার্স, ঢাকা।
- Related Article, Reports, Journals and Websites

1. Course Number: PC 112

Course Title: Education in Bangladesh

2. Credit Hours: 4

3. Course Description

The course introduces the national system of education to students throughout its origin, components, types, policies, goals, constitutional and legal provisions. It also discusses different sectors of education i.e. pre-primary, primary, secondary, tertiary, technical/vocational, madrasa education and their origin, programs, objectives, structure, participation of students, curriculum and instructional activities, evaluation, planning, management and financing of the system. This course addresses SDG-4: Quality of education in different sectors of education in Bangladesh. It further focuses on the problems and issues of education in Bangladesh with their possible solutions.

4. Course Objectives

The objectives are to help learners to

- a. acquaint with the concept, structure, goals, objectives, and issues of national system of education.
- b. gain a comprehensive view of pre-primary, primary, secondary and tertiary education their present status, institutions, access and participation, curriculum, evaluation, organisation, management, supervision and finance.
- c. understand madrasah education as a parallel system of main stream education.
- d. understand the importance of vocational and technical education system in the country.
- e. identify the major challenges, gaps and obstacles of education and develop their insight into the causes of the problems and possible solutions.
- f. know and understand Sustainable Development Goals, especially Sustainable Development Goal-4 and means of achieving the goal and targets.

5. Course Contents

Contact Hours

Unit 1: Education as a National System-A phase of Transition

7

Learning Outcomes

At the end of this unit learners will be able to

- a. describe brief history of education from Aryan till today
- b. explain relationship between goals & objectives of education and philosophy of education
- c. explain origin and components of national system of education
- d. demonstrate present structure of education system
- e. describe legal frame work of education in Bangladesh
- f. provide explanation of the structure of education system in Bangladesh
- g. describe the goals of sustainable development in relation to education (SDG-4)

Content

- Concept of a national system of education
- Historical development of education starting from Aryan-till today
- Origin, component, types of national system of education
- Goals, objectives, philosophy, policies, constitutional provision and legal frame work
- Structure of education
- Sustainable development goals (SDG-4)

Unit 2: Pre-Primary and Primary Education

07

Learning outcomes

At the end of this unit learners will be able to

- describe present situation of pre-primary and primary education in Bangladesh in relation to goals, access, participation, transition and equity
- explain curriculum matrix of pre-primary and primary education on the basis of learning areas
- explain goal, objectives, components and background of Primary Education Development Programs (PEDP)
- outline the administrative structure of primary education and major roles of MoPME & DPE
- analyse functions of teacher training institutes at primary education
- identify challenges, gaps and issues of primary education and suggest possible solutions to meet up the goals of sustainable development

Content

- Present structure, goals and objectives
- Access, participation, transition and equity
- Pre-primary curriculum matrix: Learning areas, learning activity, learning outcomes
- Primary curriculum & Textbooks, Assessment Guideline and role of NCTB
- Planning, management and financing of Primary Education
 - Administrative structure
 - Role of Ministry of Primary and Mass Education (MoPME); Directorate of Primary Education (DPE)
- Ongoing projects and development programs
- Initiatives and concerned organisations /institutions: GO, NGO and INGOs
- Primary Teacher Education: Institute of Education and Research, Diploma in Primary Education (DPED) in Primary Teacher Training Institute (PTI), Sub-Cluster Training and Upazila Resource Centre (URC)
- Major issues, challenges and possible solutions

Unit 3: Secondary Education

8

Learning Outcomes

At the end of this unit learners will be able to

- sketch present structure of secondary education
- describe the major role and responsibilities of MoE and DSHE
- identify the Govt./Public and Non-Govt. Secondary Schools role in managing and implementing quality secondary education
- analyse functions of teacher training institutes at secondary education
- identify problems and issues of secondary education and find out the possible solutions to meet up the goals of sustainable development

Content

- Present structure, goals and objectives
- Access, participation, completion and equity
- Curriculum, Textbook, Teachers Guide, Assessment and role of NCTB
- Evaluation and examination system and the role of Education Boards
- Planning, Management and financing of Secondary education
 - administrative structure

- role of Ministry of Education (MoE); Directorate of Secondary and Higher Education (DSHE)
- Ongoing projects and development programs i.e. TQI, SESIP, SBA
- Secondary Teacher Education: Institute of Education and Research, TTCs-Public and Private; HSTTI
- Major issues, challenges and possible solutions

Unit 4: Higher/Tertiary Education

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain with examples types of higher education institutions in Bangladesh and their features
- b. describe the present situation of higher education in Bangladesh
- c. mention the role and responsibilities of University Grants Commission (UGC) in planning, management, and financing of higher education
- d. identify problems and issues of higher education and find out the possible solutions to meet up the goals of sustainable development

Content

- Goal and objectives
- Types: universities, colleges, specialised institutions
- Present structure, access and participation in Higher Education
- Management and financing
 - Role of University Grants Commission (UGC)
- Ongoing projects and development programs
- Prospects, problems and solutions

Unit 5: Madrasah Education

4

Learning Outcomes

At the end of this unit learners will be able to

- a. present the structure of Madrasah education in Bangladesh
- b. describe the roles and responsibilities of concerned organisations in management and financing
- c. evaluate the GoB and project initiatives to improve the quality of madrasah education
- d. analyse functions of teacher training institutes at madrasah education
- e. identify problems and issues of Madrasah education and find out the possible solutions to meet up the goals of sustainable development

Content

- Origin, concept and types of Madrasah education
- Present structure, goals, objectives, access and participation
- Curriculum, assessment and instructional processes
- Management and financing
 - Technical and Madrasah Education Division
 - Madrasah Education Board
- Bangladesh Madrasah Teachers Training Institute (BMTTI)
- Major issues and problems and their possible solutions

Unit 6: Technical and Vocational Education

5

Learning Outcomes

At the end of this unit learners will be able to

- demonstrate present structure of technical and vocational education
- describe the role and responsibilities of the following organizations in planning, management, financing and quality improvement of technical and vocational education
- identify the role of technical and vocational education to economic development of Bangladesh
- analyse the programs and projects for TVET
- analyse functions of teacher training institutes at TVET education
- identify problems and issues of technical and vocational education and find out the possible solutions to improve the quality

Content

- Structure, goals and objectives
- Access and participation
- Curriculum, NQF
- TVET for employability and sustainable development
- Management and financing
 - Technical and Madrasah Education Division
 - Directorate of Technical education
 - Technical Education Board
- Programs and Projects in technical and vocational education
- Technical Teachers Training College (TTTC)
- Prospects, problems and solution

Unit 7: Refugee Education

03

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept, importance and principles of refugee education in Bangladesh
- demonstrate the different program intervention for different age group in refugee education

Content

- Refugee education in Bangladesh: Concept and Importance
- Principles in refugee education
- Joint response plan (JRP) and Education program in Rohingya response
- UN, INGO and NGOs program: program interventions for different age groups

6. Instructional Strategies

- Lecture
- Guided discussion
- Group work
- Seminar
- Case study
- Project Work

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Ahmad, Q. K. (2007). *Education watch 2006: Financing primary and secondary education in Bangladesh*. Dhaka, Bangladesh: Campaign for Popular Education.
- Ahmed, M., Ahmed, K. S., Khan, N. I., & Ahmed, R. (2007). *Access to education in Bangladesh: Country analytic review of primary and secondary education*. Dhaka, Bangladesh: Create.
- Ahmed, S. G., Rahman, M. M. and Matilal P. (2010). *Dropout Rate in Secondary Level Education in Bangladesh (eds)*. Dhaka: The University Press Limited.
- Ahmed, M. (2011). *Education in Bangladesh: Overcoming Hurdles to Equity with Quality (ed)*. Dhaka: Brac University Press.
- Andaleeb, S. S., Halimur R. K. and Manzoor A (2011). *Education and National Development: Selected Papers from the 2008 and 2009 Conferences on Bangladesh at Harvard University (eds)*, Dhaka: The University Press Limited.
- Bangladesh Bureau of Educational Information and Statistics. (2015). *Educational structure of Bangladesh*.
- Bangladesh Bureau of Educational Information and Statistics. (2016). *Educational Statistics*.
- Bangladesh Bureau of Statistics (BAS): Statistical Yearbook of Bangladesh, Dhaka.
- Bangladesh Education Sector Reports by Asian Development Bank.
- Delors, J. and International Commission on Education for the Twenty-First Century (1996). *Learning: The Treasure Within : Report to UNESCO of the International Commission on Education for the Twenty-first Century*.
- Falk, B. (2010). Supporting the education and care of young children: Putting into practice what we know. In A. Liberman, M. Fullan, & D. Hopkins (Eds.), *Second international handbook of educational change* (pp. 933-951). London: Springer.
- Govt. of the People's Republic of Bangladesh, Bangladesh Education Commission Reports 1973, 1988 and 2000, Dhaka.
- Hossain, A., & Zeitlyn, B. (2010). *Poverty, Equity and Access to Education in Bangladesh. CREATE Pathways to Access*. Research Monograph No. 51
- Ilon, L. (2000). Colonial secondary education in a global age: Economic distortions in Bangladesh. *Asia Pacific Education Review*, 1(1), 91-99.
- Jalaluddin, A. K., and A. M. Chowdury (1997). *Getting Started - Universalising Quality Primary Education in Bangladesh (eds)*. Dhaka: The University Press Limited.
- Khatun, S. (1992). *Development of Primary Education Policy in Bangladesh*. Dhaka: University of Dhaka.
- Ministry of Education. (2010). *National education policy 2010*. Dhaka, Bangladesh: Author.
- Ministry of Education (1992). Secondary Education Sub-Sector Study, Dhaka.
- Mujeri, M. K. (2010). The rights-based approach to education in Bangladesh. *The Bangladesh Development Studies*, 139-203.
- Nurullah, S. & Naik, J.P. (1962), *A Student's History of Education in India*, Bombay, Mac Millan & Co.
- Letchamanan, H. and Debotri D. (2018). *Education in South Asia and the Indian Ocean Islands*. London: Bloomsbury Academic.
- Scharfe, H. (2002). *Education in Ancient India*. Leiden: Brill.
- Rahman, M. M., Hamzah, D. M. I. M., Meerah, P. D. D. S.M., & Rahman, M. (2010). Historical development of secondary education in Bangladesh: Colonial period to 21st century. *International Education Studies*, 3(1), 114-125.
- Rahman, T., Nakata, S., Nagashima, Y., Rahman, M., Sharma, U., & Rahman, M. A. (2019). *Bangladesh tertiary education sector review: Skills and innovation for growth*. World Bank.

- Raynor, J. (2007). Education and capabilities in Bangladesh. In *Amartya Sen's capability approach and social justice in education* (pp. 157-176). New York: Palgrave Macmillan
- Roy, S., Huq, S., & Rob, A. B. A. (2020). Faith and education in Bangladesh: A review of the contemporary landscape and challenges. *International Journal of Educational Development*, 79, 102290.
- United Nations Educational, Scientific and Cultural Organization. (2007). *Secondary education regional information base: Country profile, Bangladesh*. Bangkok, Thailand: UNESCO Asia and Pacific Regional Bureau for Education.
- United Nations Educational, Scientific and Cultural Organization. (2011). *World data on Education: Bangladesh*.
- আব্দুল মালেক, মরিয়ম বেগম, ফখরুল ইসলাম ও শেখ শাহবাজ রিয়াদ (২০১৮), *শিক্ষাবিজ্ঞান ও বাংলাদেশে শিক্ষা*, ৭ম সংস্করণ, ঢাকা: রুম্যান পাবলিশার্স।
- এম তারিক আহসান ও ম, মাহবুবুর রহমান (২০২২), *কোভিড পরবর্তী শিক্ষা ও শিখন কৌশল*। ঢাকা: লিপিকার।
- কবীর চৌধুরী (২০১০), *জাতীয় শিক্ষানীতি ২০১০*, ঢাকা: শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- কুদরাত-এ-খুদা, মুহাম্মদ (১৯৭৪), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: বাংলাদেশ সরকারি মুদ্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- বিনয় মিত্র (২০১৪), *বাংলাদেশের শিক্ষাব্যবস্থা: রূপ ও রীতি*, ঢাকা: ইত্যাদি গ্রন্থ প্রকাশ।
- ম. হাবিবুর রহমান, শফিউল আলম, মমতাজ জাহান, সৈয়দ আমীরুল ইসলাম ও সৈয়দ-উল-আলম কাজল (সম্পাদকবৃন্দ) (২০০৩), *শিক্ষাকোষ*, ঢাকা: শিক্ষার জন্য নাগরিক সমাজ।
- মুহাম্মদ হাবিবুর রহমান (২০১৪), *শিক্ষার্থী ও শিক্ষাদাতাদের জয় হোক*, ঢাকা: মাওলা ব্রাদার্স।
- মোহাম্মদ হাননান (২০০০), *বাংলাদেশের শিক্ষা ব্যবস্থা ও পরীক্ষা পদ্ধতির ইতিহাস*, ঢাকা: অন্যপ্রকাশ।
- রবীন্দ্রনাথ ঠাকুর (১৯৬০) *শিক্ষা*, কলকাতা: বিশ্বভারতী গ্রন্থালয়।
- রাহমান চৌধুরী (২০১৫), *বাংলার চারশো বছরের প্রাথমিক শিক্ষা*, ঢাকা: শ্রাবণ প্রকাশনী।
- হোসনে আরা শাহেদ (সম্পাদক) (২০১৯), *বাংলাদেশের শিক্ষাব্যবস্থা*, ঢাকা: সূচীপত্র।

1. Course Number: PC 113

Course Title: Educational Psychology

2. Credit Hours: 4

3. Course Description

This course is designed to provide contemporary perspectives of educational psychology and its use in the field of education. It covers cross cutting learning theories and their educational implications, ranging from neuron based learning to social constructivism, intelligence, motivational strategies and emotional management of learners.

4. Course Objectives

The objectives are to help learners to

- a. understand the theoretical and practical aspects of educational psychology and its application in the classroom.
- b. comprehend the basic concept of motivation and its application in teaching-learning process in the schools.
- c. understand the role of emotion in teaching and learning.
- d. gain the knowledge and skills of classroom management.

5. Course Contents

Contact Hours

Unit 1: Introduction to Educational Psychology

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept and scope of educational psychology
- b. analyze the methods of educational Psychology

Content

- Concept of Educational Psychology
- Scope of Educational Psychology
- Methods of Educational Psychology

Unit 2: Biological Basis of Behavior and Learning

5

Learning Outcomes

At the end of this unit learners will be able to

- a. relate learning and behavior with nervous system
- b. analyze the impact of Glandular system on human development and learning

Content

- The Human Nervous system
- Neurological basis of behavior and learning
- Glandular system
- Impact of Glandular system on human development and learning

Unit 3: Learning Theories and Applications

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of learning

- b. compare among different theoretical perspectives of learning
- c. apply different theoretical perspectives in learning in educational setting

Content

- Concept of Learning: Maturation vs. learning
- Behaviorist perspective of learning and its educational applications: Classical conditioning, Operant conditioning, and Connectionism, Insightful theory of learning
- Cognitive perspective of learning and its educational applications: Piaget's theory of cognitive development, Information processing approach to learning
- Constructivism and its educational applications: Radical and Social, Constructionism and its educational applications
- Connectivism: Connectedness, Tech-based learning, Artificial Intelligence, EdTech

Unit 4: Motivation and Learning

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of motivation
- b. comprehend Maslow's Hierarchy of needs
- c. analyze self-determination theory
- d. apply theories of motivation in learning

Content

- Concept and types of Motivation
- Motivational factors for: learners, teachers, parents, environment
- Theories of Motivation: Maslow's Hierarchy of needs, Herzberg's two factor theory, Self-determination theory
- Application of motivation in learning

Unit 5: Emotion and Learning

4

Learning Outcomes

At the end of this unit learners will be able to

- a. comprehend the nature of emotion and its types
- b. relate physiological changes and emotion
- c. explain teacher's role in learner's emotional management

Content

- Emotion: Nature and its types
- Emotion and physiological changes
- Function of emotion in education
- Teachers' role in learner's emotional management

Unit 6: Intelligence and creativity

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different concepts of intelligence
- b. understand the concept of creativity
- c. relate between intelligence and creativity

Content

- Intelligence: Concept
 - Controversies: Holistic and Multifaceted view
 - Intelligence Test: Stanford Binet and Wechsler
 - Multiple Intelligence and learning
 - Convergent and Divergent Thinking and their implication on creativity and learning
 - Emotional intelligence
- Creativity: Concept, strategies to facilitate creativity among learners

Unit 7: Classroom Management

7

Learning Outcomes

At the end of this unit learners will be able to

- a. plan strategies for classroom management
- b. analyze the causes and types of behavioral concerns in classroom
- c. respond to different behavioral concern
- d. apply positive behavior support approach in classroom

Content

- Classroom management-concept, nature, significance
- Planning classroom discipline and management
- Causes and types of behavioral concern in classroom
- Strategies of responding to behavioral concerns
- Positive Behaviour Supports (PBS): A whole-school approach

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Question-Answer
- d. Library work
- e. Debate
- f. Seminar
- g. Project

7. Assessment

- | | |
|---|-------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 +40= 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Alexander, P. A., & Winne, P. H. (2006). *Handbook of educational psychology (2nd Ed.)*. Erlbaum.

Armstrong, T. (1994). *Multiple Intelligences in the Classroom*. Virginia: ASCD.

Berk, L. E. (2003). *Child Development (6th Ed.)*. New Jersey: Pearson Education Lefrancois.

Frederickson, N., Miller, Andy, & Cline, Tony. (2008). *Educational psychology*. Hodder Education.

Jensen, Eric (1998). *The brain in mind*, Virginia: ASCD.

Mangal, S. K. (1993). *Advanced educational psychology*, New Delhi: Prentice-Hall Pvt. Ltd.

Ormrod, J. E. (2006). *Essentials of educational psychology*. Pearson Merrill Prentice Hall.

Robinson, K. (2016). *Creative Schools: The grassroots revolution that's transforming education*. Penguin Publishing Group.

Sternberg, R. J., & Williams, Wendy M. (2010). *Educational psychology (2nd Ed.)*. Merrill.

Tuckman, B. W., & Monetti, David M. (2011). *Educational psychology*. Wadsworth/Cengage Learning.

Woolfolk, A. (2016). *Educational psychology* (13th Ed.), Boston: Pearson.

Woolfolk, A., Hughes, M., & Walkup, V. (2008). *Psychology in education*, Harlow: Pearson Longman.

নীহার রঞ্জন সরকার, (২০০৬), *মনোবিজ্ঞান ও জীবন*, ঢাকা: জ্ঞানকোষ প্রকাশন।

মুহাম্মাদ নাজমুল হক, সায়ারা হোসেন ও মোঃ আহসান হাবীব, (২০১৮). *শিক্ষায় মনোবিজ্ঞান*, ঢাকা: বিশ্বসাহিত্য ভবন।

মুহাম্মাদ নাজমুল হক ও সায়ারা হোসেন, (২০১৪), *শিক্ষায় জ্ঞান ও বিকাশ তত্ত্ব*, ঢাকা: বিশ্বসাহিত্য ভবন।

1. Course Number: PC 114

Course Title: Instructional Technology

2. Credit Hours: 4

3. Course Description

This is a basic course on instructional strategies that provides exposure to fundamental skills needed in the classroom. Effective teaching methods and techniques are interwoven in this course. Due emphasis has also been given on effective use of instructional materials. Therefore, the course is a combination of the major two areas of technology-software and hardware. The course's unique feature is that the theoretical presentation of each method and technique will be followed by a practical demonstration by the course teacher in an actual classroom situation. This course is a prerequisite for teaching courses and Practicum.

4. Course Objectives

The objectives are to help learners to

- a. develop a clear understanding of the concept, nature, and scope of the terms-instruction, technology, instructional technology, and other related terminologies.
- b. internalize the fundamental features and indicators of effective instruction and identify their roles as effective facilitators in the learning process.
- c. acquire the communication skills and apply them in classroom situations.
- d. acquaint the learners with different teaching methods and techniques.
- e. help them acquire the skills of using the methods and techniques effectively.
- f. acquire the skills of collecting, preparing, using, and preserving different instructional materials in the forms of equipment, teaching aids, and supplementary readers.
- g. acquaint the learners with the yearly, unit and daily lesson plans and help them develop the skills of preparing lesson plans and facilitating learning in the classroom following lesson plan.

5. Course Contents

Contact Hours

Unit 1: Key Concepts of Instructional Technology

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept, nature, and scope of the terms-instruction, technology, instructional technology, and other related terminologies

Content

- Technology, Instructional Technology, Educational Technology, Teaching, Instruction, Software & Hardware, Learning opportunity, Instructional Materials, Supplementary Materials, Teaching Aids, Teacher Guide, Teacher Edition, Teacher Instruction, Teacher Curriculum Guide, Teacher Competency/Teacher Standard

Unit 2: Effective Teaching and Role of Facilitator

4

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze internalize the fundamental features and indicators of effective instruction and identify their roles as effective facilitators in the learning process

Content

- Changing perspectives of teaching
- Consideration of 21st century skills in teaching
- Changing role of teachers as facilitators in the classrooms and online classes
- Different Teaching Aspects:
Expository Teaching; Interactive Teaching; Inquiry Teaching; Models of Reality
- Phases of Teaching: Pre-active, Interactive, and Post-active phases
- Criteria and Factors of Effective Teaching

Unit 3: Effective Communication in Teaching-learning

3

Learning Outcomes

At the end of this unit learners will be able to

- a. recognize the communication skills and apply them in a classroom situation

Content

- Concept and nature of communication in teaching and learning
- Communication styles: Verbal, nonverbal, and unintended communication
- Communication Models, perspectives, and uses
- Barriers in classroom communication
- Criteria of effective classroom communication

Unit 4: Effective Management of Classroom Learning

3

Learning Outcomes

At the end of this unit learners will be able to

- a. understand different teaching methods and techniques and help them acquire the skills of using the methods and techniques effectively

Content

- Concept of classroom management
- Different classroom management context
- Factors that influence students' behavior: physical factors, socio-cultural factors, and educational factors
- Managing inappropriate behavior
- Guidelines for effective praise: preventative, supportive, and corrective

Unit 5: Creative use of Instructional Materials

3

Learning Outcomes

At the end of this unit learners will be able to

- a. acquire the skills of collecting, preparing, using, and preserving different instructional materials in the forms of equipment, teaching aids, and supplementary readers

Content

- Concept and significance of instructional materials
- Dale's Cone of Experience and its use selecting instructional materials
- Classification of teaching aids
- Principles for selection of instructional materials
- Strategies for using instructional materials
- Maintenance of instructional materials

- Low cost, no cost, and improvised instructional materials
- Uses of computer/laptop/cell phone and internet-based technology, apps, and systems in face to face and online classes (e.g., Learning Management System: Goole classroom, Moodle) used in local and global contexts
- Challenges to creative uses of instructional materials

Unit 6: Classroom Methods and Techniques

5

Learning Outcomes

At the end of this unit learners will be able to

- a. acquaint the learners with different teaching methods and techniques and help them acquire the skills of using the methods and techniques effectively

Content

Theoretical presentation of each method will be followed by a demonstration by the course instructor or by a student

- Concept of methods and Techniques
- Different Methods and Techniques: Basic Features; Link with learning theory, How it works with example; Advantages and limitations; ways of Improvements; Role of Teachers and students; Consideration for Bangladesh Classroom context
- Lecture method
- Group Discussion
- Question-Answer
- Problem Solving Method
- Project Method
- Multiple Ways of Teaching and Learning (MWTL)
- Blended learning, flipped classroom
- Online teaching-learning methods and techniques

Unit 7: Knowledge of Practice in Action

6

Learning Outcomes

At the end of this unit learners will be able to

- a. acquaint the learners with different teaching methods and techniques and help them acquire the skills of using the methods and techniques effectively

Content

- Meaning of knowledge of practice in action: Prior knowledge; Knowledge processing; Knowledge linking; Knowledge translation; Knowledge synthesizing
- Metacognition teaching procedure for prior knowledge: Probe of prior views; Logbook; Card Sorting; Concept map; Know-What-Learn-How; Brainstorming; Think-Pair-share; Semantic map
- Teaching procedure for knowledge processing: Jumbled text; *pyramids*; Creating heading/sub-heading; Question grid; Information grid; Question dice; Grids; Writing on the reading; Plus-Minus-Interesting (PMI)
- Teaching procedure for linking: Linking cycle; Linking to real-life; Creating analogies; Mind maps
- Teaching procedures for knowledge Translation: Story from a graph/charts or graph from a Story; Role-play; Storyboarding; Slowmation; Model making; Creative writing
- Teaching procedures for knowledge Synthesizing: The Suchman technique Jigsaw group work method; Before-Now-After; Postbox; Fishbowl discussion
- Teaching Procedure for Metacognition: Predict-Observe-Explain; Venn Diagrams; Moving-on Map

Unit 8: Procedures of Teaching and Lesson Plan

4

Learning Outcomes

At the end of this unit learners will be able to

- a. acquaint the learners with the yearly, unit and daily lesson plans. Help them develop the skills of preparing a lesson plan and facilitating learning in the classroom or online classes following lesson plan

Content

- Year plan: Concept, importances/considerations; structure with examples
- Unit Plan: Concept; importance's, considerations; structure with examples
- Lesson plan: Concepts; origin- Herbartian procedures; importance's, considerations
- Structures with examples
- Ensuring permanent learning through developing an effective lesson plan

Unit 9: Dynamic Systems

2

Learning Outcomes

At the end of this unit learners will be able to

- a. acquaint the learners with different teaching methods and techniques and help them acquire the skills of using the methods and techniques effectively

Content

- Dalton Plan
- Kindergarten System
- Montessori System
- Multigrade teaching and learning
- Multilevel teaching and learning

6. Instructional Strategies

- a. Participatory
- b. Discussion
- c. Role Play
- d. Demonstration

7. Assessment

- | | |
|-------------------------------|----------|
| a. Two In-course Examinations | 30 Marks |
| b. Semester Final Examination | 60 Marks |
| c. Assignment | 10 Marks |

8. Recommended Books, Journals and Reports

Brown, J. W, A. V. *Instructional Materials and Methods*, McGraw-Hill Book Company Inc. NY, USA.

Date E: *Audio Visual Methods in Teaching*, Hold, Rinehart and Winston, New York

Jangira, N.K and Anupam Ahuja (1992), *Effective Teacher Training Cooperative Learning Based Approach*, National.

Lay, E.J.S (Edt.) *Encyclopedi of Modern Methods of Teaching (Vol. I to VI)*, Anmol Publications, Ltd, New Delhi.

Mathur, Brijendra and Beena Thadani (1988), *A Hand-Book for the Prospective Teacher*, Atlantic Publishers and Distributors, 1988.

Narany, M and V. Arora (edtg.), *Encychopaedia of Techniques of Teaching (Vol. I to III)*, Anmol Publications, Ltd, New Delhi.

Rao, V.K and Reddy, *The Nature of Educational Technology*, Commonwealth Publishers, New Delhi, 1992.

Sampath, K and Others, *Instruction to Educational Technology*, Sterling Publications Pvt. Ltd. (1990), New Delhi.

Thompson, W. N. (1957), *Fundamentals of Communication: An Integrated Approved*, McGraw-Hill Book Company Inc. NY, USA.

আলী, আজহার ও হোসনে আরা বেগম, *শিক্ষানীতির স্বরূপ*, ঢাকা।

আলী, মো: আনাসার, *শিক্ষানীতি পরিক্রমা*, ঢাকা: মিতা ট্রেডার্স।

খাতুন, সালেহা, ও দেলোয়ার হোসেন, *শিক্ষা প্রযুক্তি*, ঢাকা: হায়ার সেকেন্ডারল এডুকেশন প্রজেক্ট।

ঘোষ, অরুণ, *শিক্ষাবিজ্ঞানের দর্শন ও মূলতত্ত্ব*, কলিকাতা: এডুকেশনাল এন্টারপ্রাইজার্স।

ঘোষ, নীলিমা ও কুণ্ডুনোষ কুমার, *আধুনিক শিক্ষা পদ্ধতি*, কলিকাতা: প্রেসিডেন্সী লাইব্রেরী।

রায়, সুশীল (২০০০), *শিক্ষণ ও শিক্ষা প্রসঙ্গ*, কলিকাতা: সোমা বুক এজেন্সী।

হক, শামসুল, *মুখের কথা ও বাচনিক তৎপরতা*, ঢাকা: বাংলা একাডেমী।

হালদার, গৌরদাস (১৯৯৮-৯৯), *শিক্ষণ প্রসঙ্গে বিদ্যালয় সংগঠন ও শিক্ষাবিজ্ঞান*, কলিকাতা: ব্যানার্জী পাবলিশার্স।

Related Websites.

1. Course Number: PC 115

Course Title: Philosophical Foundation of Education

2. Credit Hours: 4

3. Course Description

The course is designed to help students to acquaint with the role of philosophy and educational philosophy especially in educational decisions. The course will also acquaint students with different beliefs and assumptions of doctrines and philosophies related to Metaphysics, Epistemology, Ethics and Education. Students will be acquainted with the thoughts and significant contribution of the selected philosophers in the field of education.

4. Course Objectives

The objectives are to help learners to

- a. understand the functions of major branches of Philosophy.
- b. understand the role of major doctrines and educational philosophies in determining the objectives of education and teaching learning strategies and in developing curricular materials.
- c. acquaint them with the eminent philosophers and their contributions in the field of education.

5. Course Contents

Contact Hours

Unit 1: Basics of Philosophy and Philosophy of Education

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the functions of Philosophy
- b. discuss the functions of branches and areas of application of Philosophy
- c. explain the rationale for studying Philosophy of Education

Content

- Meaning, definition, functions of philosophy
- Major branches of philosophy and their areas of inquiry
 - Metaphysics
 - Epistemology
 - Axiology
- Areas of application of Philosophy: Philosophy of Science, Philosophy of Education, Philosophy of religion, Philosophy of mind, Philosophy of art, Philosophy of Politics
- Scope and necessity of studying Philosophy of Education: Philosophy as the foundation of education

Unit 2: Understanding of Major Philosophical Thoughts in Metaphysics and Epistemology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. present beliefs of major philosophical thoughts or doctrines in Metaphysics and Epistemology
- b. establish relationship among different philosophical ideas and education
- c. apply these ideas in education

Content

- Doctrines in Metaphysics: basic beliefs and educational implications
 - Idealism
 - Realism
 - Materialism
 - Naturalism
 - Essentialism
 - Existentialism
- Doctrines in Epistemology: basic beliefs and educational implications
 - Empiricism
 - Rationalism
 - Constructivism/Constructionism
 - Pragmatism

Unit 3: Personal Philosophy of an Educator

3

Learning Outcomes

At the end of this unit learners will be able to

- a. identify components of an educator's personal philosophy of education
- b. explain relationships between an educator's personal philosophy and his/her educational decision making
- c. reflect on one's own practice and philosophy behind it

Content

- Relationship between an educators personal philosophy and educational decision making
- What makes a teaching philosophy: Beliefs about teaching and learning; Beliefs about students, Beliefs about knowledge, Beliefs about what is worth knowing, personal beliefs in philosophical areas
- Reflecting on one's self educational beliefs and their influence on his/her educational practice

Unit 4: Implications of Philosophical Ideas in Education

6

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze different educational philosophies
- b. explain the function of philosophy in formulating aims and objectives of education
- c. analyze significance, nature, and process of education in line with different philosophical ideas
- d. apply philosophical thoughts in selecting aims of education and teaching learning approaches for developing curriculum

Content

- Educational Philosophies and their implications
 - Educational Essentialism
 - Existentialism
 - Humanism
 - Perennialism
 - Progressivism
 - Social re-constructionism

- Educational implications of basic philosophical ideas on nature of curriculum development with special reference to develop aims and objectives of education, and selecting learning experiences
- Influence of Philosophy and Culture in education: Western and Eastern context
- Ethics and Moral Education

Unit 5: The Great Philosophers of different era and their Contribution to Education

8

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the educational thoughts of philosophers from different periods
- b. explain the importance and relation of philosophers' educational thought

Content

Western Philosophers

- Socrates (470 BCE—390 BCE)
- Plato (427 BCE—347 BCE)
- Aristotle(384 BCE—322BCE)
- Rousseau(1712—1778)
- Froebel (1782—1852)
- John Dewey(1859—1952)
- Paolo Freire(1921—1997)
- Michel Foucault (1926—1984)

Philosophers from East

- Confucius (551—479 BCE)
- Rabindranath Tagore (1861—1941)
- Begum Rokeya (1880—1932)
- Bangabandhu Sheikh Mujibur Rahman (1920—1975)

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Project work/Assignment

7. Assessment

- d. Two In-course Examinations 15 × 2 = 30
- e. Course Final Examination (MCQ + Essay) 20 +40= 60
- f. Assignment/Presentation 10

8. Recommended Books, Journals & other resources

- Barrow, R. & Woods, R. (2006). *An Introduction to Philosophy of Education (4th Edition)*. New York: Routledge.
- Blake, N., Smeyers, P., Smith, R. & Standish, P. (Eds.) (2003). *The Blackwell guide to the philosophy of education*. Oxford: Blackwell Publishing Ltd.
- Durant, W. (1967). *The Story of Philosophy*. New York, NY: Simon and Schuster. Simon & Schuster.
- Henderson, S. V. P. (1947). *Introduction to Philosophy of Education*. Chicago, IL: University of Chicago Press.

- Hirst, P. & White, P. (eds.) (1998). *Philosophy of Education: Major Themes in the Analytic Tradition*. New York: Routledge.
- Macdonald, J. (2015). *A Philosophy of Education*. Charleston: Andesite Press.
- Moore, T. W. (2010). *Philosophy of Education: An Introduction*. New York: Routledge.
- Noddings, N. (1995). *Philosophy of Education*. Boulder: Westview Press.
- Payne, W. R. (2015). *An Introduction to Philosophy*. Retrieved 18 October, 2019 from <https://commons.bellevuecollege.edu/wrussellpayne/an-introduction-tophilosophy/>
- Radhakrishnan, S. (1952). *History of philosophy: Eastern and western* (Vol 1-2). London: George Allen & Unwin Ltd.
- Russel, B. (1964). *A history of Western Philosophy*. New York, NY: Simon and Schuster.
- Siegel, H. (Ed.) (2009). *The Oxford Handbook of Philosophy of Education*. Oxford: Oxford University Press.
- Smeyers, P. (Ed) (2018). *International Handbook of Philosophy of Education*. Springer
- Ulich, R. (1960). *History of educational thought*. Woodstock, GA: American Book Company.
- অরুন ঘোষ (১৯৯১), *শিক্ষাবিজ্ঞানের দর্শন ও মূলতত্ত্ব*, কলকাতা, ভারত: এডুকেশনাল এন্টারপ্রাইজ।
- আমিনুল ইসলাম (১৯৯১), *আধুনিক পাশ্চাত্য দর্শন: প্রাচীন ও মধ্যযুগ*, ঢাকা: লাকী বুক হাউজ।
- আমিনুল ইসলাম (১৯৮৪), *আধুনিক পাশ্চাত্য দর্শন (২য় মুদ্রণ)*, ঢাকা: বাংলা একাডেমি।
- জগদীন্দ্র মন্ডল (১৯৮৬), *শিক্ষাদর্শন ও শিক্ষাবিজ্ঞান*, কলকাতা, ভারত: দি বুক এক্সচেঞ্জ।
- শরীফা খাতুন (২০১৪), *দর্শন ও শিক্ষা*, ঢাকা: মাওলা ব্রাদার্স।
- সুশীল রায় (১৯৯১), *শিক্ষাতত্ত্ব ও শিক্ষাদর্শন*, কলকাতা, ভারত: সোমা বুক এজেন্সী।
- Websites:
- The Basics of Philosophy: <https://www.philosophybasics.com/>
- Stanford Encyclopedia of Philosophy: <https://plato.stanford.edu/>

1. Course Number: PC 116

Course Title: Sociological Foundation of Education

2. Credit Hours: 4

3. Course Description

The Course is designed to provide knowledge and understanding of Education as a social phenomenon. In this regard, attempts have been made to bring into focus the interrelations of education to different social institutions, groups and processes. Emphasis has also been given on the sociological and other related factors which influence and shape the 'Education' of a society, especially of Bangladesh.

4. Course Objectives

The objectives are to help learners to

- a. understand the importance of sociological approach to the study of 'Education'.
- b. identify social aims and agencies of education.
- c. comprehend the relations of education to various social institutions, groups and processes.
- d. acquaint with significant social functions of education.
- e. identify major social bases of 'Education' in a society, especially in Bangladesh.
- f. understand various aspects of pedagogy and andragogy from sociological point of view.
- g. identify the major social problems affecting education in Bangladesh.

5. Course Contents

Contact Hours

Unit 1: Sociological Approach of Studying Education

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept, nature and scope of 'Sociology'
- b. explain the importance of sociological approaches to study education
- c. analyse education systems of different countries applying inorganic and organic models of social structure

Content

- Concept, nature and scope of Sociology
- Meaning and importance of sociological approach to the study of 'Education'
- Major approaches: Inorganic approach and Organic approach

Unit 2: Social Aims of Education

4

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the importance of social aims of education
- b. explain the importance of these aims of education in social life

Content

- Physical development
- Development of personality
- Development of democratic and intellectual abilities
- Development of social competencies
- Livelihood
- Moral development

- Cultural development
- Aesthetic development
- Spiritual development

Unit 3: Social Agencies of Education

4

Learning Outcomes

At the end of this unit learners will be able to

- identify and categorise major social agencies disseminating education in the society
- explain the roles of these agencies in education

Content

- Formal agencies
School, Madrasa, College, University, Other Education Institutions
- Informal agencies
Home or family, community, state, organizations, religion, peer group, mass media, social media, internet, Library, Museum, cinema, drama newspaper, magazine, radio, television, tour

Unit 4: Social Bases of Education

10

Learning Outcomes

At the end of this unit learners will be able to

- identify and analyse social bases which shape education in different countries with special reference to Bangladesh

Content

- Family
- Gender
- Race and ethnicity
- Social stratification
- Demographic factors
- Religion
- Culture
- Urbanization
- Industrialisation
- Economic factors
- Political factors

Unit 5: Social Functions of Education

8

Learning Outcomes

At the end of this unit learners will be able to

- explain various social functions of education with especial reference to Bangladesh

Content

- Socialisation
- Citizenship training
- Culture conservation and transmission
- Innovations
- Social changes and Development
- Adapting social changes

Unit 6: Sociology of Pedagogy and Andragogy

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain social contexts of pedagogy and andragogy
- b. analyse characteristics of teaching profession and related ethics and values
- c. identify and explain qualities and social roles of the teacher

Content

- Concept of pedagogy and andragogy
- Social contexts of learning and teaching for children and adults
- Teaching as a profession
- Teaching ethics and values
- Teaching qualities
- Social roles of the teacher

Unit 7: Social Problems and Education in Bangladesh

4

Learning Outcomes

At the end of this unit learners will be able to

- a. identify major social problems and evaluate their impact on the education system of Bangladesh

Content

- Poverty
- Child labour
- Child marriage
- Crime
- Delinquency
- Violence
- Trafficking
- Sexual Harassment
- Dowry
- Divorce
- Drugs
- Cyber addiction
- Slums
- Group unrest and conflicts

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Question- answer
- d. Observation
- e. Debate, Seminars
- f. ICT integration etc.

7. Assignment

- a. Students will be given specific assignments by the Course Teacher(s) which they will be required to submit on due dates.

8. Assessment

a. Two In-course Examinations	15 × 2 = 30
b. Course Final Examination (MCQ + Essay)	20 + 40 = 60
c. Assignment/Presentation	10

9. Recommended Books, Journals and Reports

- Bhatt, B.B. & Sharma, S.R (1993), *Sociology of Education*, Delhi: Kanishka Publishing House.
- Biesta, G. J. (2015). *Good education in an age of measurement: Ethics, politics, democracy*. Routledge.
- Bottomore, J. B. (1986), *Sociology, Bombay*, India: Blackie & Son Ltd.
- Cave, William M & Chesler, Mark. A (1974), *Sociology of Education-An Anthology of Issues and Problems*, New York: Macmillan.
- Chandra, Soti Shivendra & Sharma, Rajendra K. (1996), *Sociology of Education*, New Delhi: Atlantic Publishers & Distributors.
- Cook, L. A. & Foray, E. (1978), *A Sociological Approach to Education*, New York: McGraw-Hill Books Co.
- Deghton (ed.) (1976), *Encyclopedia of Education*, London: George Allon and Unwin.
- Dewey, John (1997) *Experience & Education*. Simon and Shuster.
- Dhali, H. H., Kabir, A. H. & Haque, T. (2016). Perceiving 'Gender' through higher education: A critical experience from the University of Dhaka, Bangladesh. *Social Science Review*, 33(1), pp. 65-78.
- Durkheim, Emile (1965), *Education and Sociology*, New York: The Free Press.
- Edgar, Earl E (1965), *Social Foundation of Education*, New York: Center for Applied Research in Education.
- Gibson, Dorothy Wesby (1965), *Social Perspectives on Education*, New York: Wiley.
- Freire, P. (2018). *Pedagogy of the oppressed*. Bloomsbury publishing USA.
- Hasley Et. Al (ed) (1979), *Education, Economy and Society*, New York: Mithuen & Co.
- Havighurst and Nougharten (1965), *Society and Education*, New York, Prentice-Hall.
- Ivor, Morish (1981), *The Sociology of Education, An Introduction*, London: Allen and Unwin.
- Kabir, A. H. & Greenwood, J. (2017). Neoliberalism, violence and student resistance in the higher education sector in Bangladesh. *Society and Culture in South Asia*, 3(1), pp. 68-91. doi: 10.1177/2393861716674106.
- Mannheim, Karl (1968), *Essays in the Sociology of Knowledge*, New York: Prentice-Hall.
- Mannheim, Karl (1962), *An Introduction to the Sociology of Education*, London: Routledge and Kegan Paul.
- Murgrave, R.W. (1979), *The Sociology of Education*, New York: Mithuen & Co.
- Rugg, Mareld, and Wit, William (1995), *Social Foundation of Education*, New York: Prentice-Hall.
- Saiyidain, K.G. (1996), *Education Culture and the Social Order*, Delhi: Doaba House.
- Shah. A (1982), *The Social Context of Education*, Bombay: Vikas Publishing House.
- Stone, James C, (1971), *Foundation of Education*, New York: Thomas Y. Crowell.
- Tait, Gordon (2018) *Making Sense of Mass Education* (3rd ed.). Cambridge University Press.
- Tjeronsden, Carl (1980), *Education for Citizenship*, California: Emil Schwarzhant Foundation.
- Walford, G. and Pickering W.S.F (1998), *Durkheim and Modern Education*. London & New York: Routledge.
- করিম, এ. কে নাজমুল (১৯৯২), *সমাজবিজ্ঞান সমীক্ষণ*, ঢাকা: নওরোজ, কিতাবস্থান।
- চৌধুরী, আনোয়ার উল্লাহ এবং অন্যান্য (১৯৮৬), *সমাজবিজ্ঞান শব্দকোষ*, ঢাকা: বাংলা একাডেমী।
- মালেক, আব্দুল ও অন্যান্য, (২০০৮), *শিক্ষা বিজ্ঞান ও বাংলাদেশে শিক্ষা*, ঢাকা: বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশন।
- মহাপাত্র, অনাদি কুমার (১৯৯৮), *বিষয় সমাজতত্ত্ব*, কলিকাতা: ইন্ডিয়ান বুক কনসার্ন।

সেন, রংগলাল (১৯৯৭), সমাজকাঠামো: পুঁজিবাদ ও সমাজতন্ত্র।

সেন, রংগলাল ও নাথ, বিশ্বম্ভর কুমার (২০০৩), প্রারম্ভিক সমাজবিজ্ঞান, ঢাকা: নিউ এড পাবলিকেশন্স।

রহমান, মুহাম্মদ হাবিবুর (১৯৯৫), সমাজবিজ্ঞান পরিচিতি, ঢাকা: হাসান বুক ডিপো।

Related Websites.

1. Course Number: PC 117

Course Title: Introduction to Educational Assessment

2. Credit Hours: 4

3. Course Description

This is an introductory course on assessment in education. The course is designed to provide an understanding of fundamental concepts of educational assessment and related skills. The course contents include both theoretical and practical features of educational assessment. The specific focus of the course is on different concepts, tools, procedures and methods relevant to learning assessment and their applications. In addition, it emphasizes on the ways of applying statistics for analyzing and interpreting assessment data. In short, the course will contribute to building assessment knowledge base, skills and attitudes of student's necessary educational assessment.

4. Course Objectives

The objectives are to help learners to

- a. conceptualize the meaning of test, measurement, assessment and evaluation in education.
- b. delineate the steps for planning and implementing assessment strategies.
- c. develop skills for writing learning objectives and learning outcomes (in behavioral terms) as basis for assessment.
- d. develop a sound knowledge-base about different approaches to assessment.
- e. comprehend the characteristics of good tests and their determining procedures.
- f. describe common statistical tools appropriate for analyzing assessment data.

5. Course Contents

Contact Hours

Unit 1: Basic Terms and Concepts

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain concepts of basic terms of assessment
- b. explain the purposes and significance of assessment
- c. delineate the differences among test, examination, assessment and evaluation
- d. describe the relationships among test, measurement, assessment and evaluation

Content

- Definition and meaning of test, measurement, assessment, evaluation and examination
- Differences and relationships among test, measurement, assessment, and evaluation
- Curriculum, teaching-learning and assessment
- Impact of assessment on educational practices (instructions and learning)
- Principles of assessment
- Assessment process- Steps involved in educational assessment
- Levels of measurement
- Purpose of assessment and its classification: assessment of learning/summative assessment, assessment for and as learning/formative assessment, assessment for inclusion

Unit 2: Basis of Assessment: Learning Objectives and Learning Outcomes

6

Learning Outcomes

At the end of this unit learners will be able to

- a. understanding and developing learning objectives and learning outcomes
- b. explain the relationships among learning objectives, learning outcomes, instruction and assessment
- c. use taxonomy of educational objectives in writing behavioral objectives

Content

- Concept and importance of learning objectives; Bloom's taxonomy of learning objectives
- Assessable/measurable or behavioral learning objectives or learning outcomes
- Writing learning objectives and learning outcomes
- The role of teacher and students in determining and writing learning objectives and outcomes
- Relationships among learning objectives, instruction, learning outcomes and assessment

Unit 3: Methods and Tools of Assessment

4

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different tools of measurement and assessment
- b. explain the use of different assessment tools
- c. describe the steps required for test construction

Content

- Different assessment methods and tools
- Test as an assessment tool: concept and classification (written, oral, performance test; Teacher-made and Standardized test)
- Written test: definition, classification, nature and purposes
- Oral and performance test: definition, nature and purposes
- Norm referenced and Criterion referenced tests
- Tools and strategies for inclusive assessment
- Alternative assessment

Unit 4: Test Construction and Scoring

9

Learning Outcomes

At the end of this unit learners will be able to

- a. develop different types of test items
- b. prepare table of specification for constructing essay type test
- c. construct assessment rubric for a particular test item

Content

- Essay type test (short-answer, extended-answer): principles and practices, strengths and limitations
- Objective type (MCQ, true-false, matching, rearranging, fill-in-the-gaps): principles and practices, strengths and limitations
- Structured/creative question: principles and practices, strengths and limitations
- Steps involved in test (teacher-made) construction
- Table of specification: concept, importance and development process
- Rubric as a tool for reliable marking; process of developing rubrics

Unit 5: Qualities of a Good Test

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the characteristics of a good test in educational setting
- b. analyze test in terms of the characteristics

Content

- Concept and characteristics of good/effective tests
- Validity: concept, types, significance, factors that affect and enhance validity, ways of determining validity of a test
- Reliability: concept, types, significance, factors that affect and enhance reliability, methods of determining reliability of a test
- Objectivity and applicability/usability
- Test norms and standardization

Unit 6: Standardization of Test

4

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the differences between standardized test and teacher-made test
- b. develop a standardized educational test following the specific steps

Content

- Concept of standardized tests
- Difference between teacher-made tests and standardized tests
- Steps involved in test standardization
- Item analysis: difficulty index, discriminating index, effectiveness of item distracters
- Principles of test administration

Unit 7: Statistics for Understanding Test Results

6

Learning Outcomes

At the end of this unit learners will be able to

- a. present assessment results in tabular and graphical form
- b. use central tendency and dispersion to analyze students' achieved score and performance
- c. compute relationships between two or more variable of students

Content

- Statistics in educational data analysis
- Scales of measurement: nominal, ordinal, interval and ratio
- Summarization and description of test scores: the frequency distribution; graphical methods: histogram, frequency polygon, frequency curve, bar diagram, pie chart
- Centre of a set of scores and its measure: Mean, Median and Mode
- Variability of test scores and its measures: Range, Interquartile range, Variance and Standard Deviation
- Shape of distribution: Skewness (Symmetric and asymmetric shapes) and Kurtosis
- The Normal Probability Curve
- Statistical relationship: Correlation between two or more variables

Unit 8: Standard Scores and Norms

3

Learning Outcomes

At the end of this unit learners will be able to

- describe the importance and use of standard scores
- convert raw achievement scores to standard score
- assign grades to students and rank them based on their performance
- explain the meaning of percentiles
- compute and interpret percentile ranks

Content

- Purpose of using standard scores and norms
- Standard Scores: Z-score, T-score
- Conversion of raw score into standard scores
- Computation of standard scores and their interpretations
- Grade and Age equivalent scores
- Ranking and Grading
- Percentiles: concepts, and use of percentiles and percentile rank
- Computation of percentiles and their interpretations

6. Instructional Strategies

- Lecture and classroom interaction
- Group study and discussion
- Individual/pair/group presentation
- Library work and students' participation in class

7. Assignment

- Construction of an achievement test for any school subject
- Preparation of essay/objective test items for any school subject
- Developing of a scoring rubric for a particular sample test item
- Analyze, interpret and present assessment results using appropriate mode

8. Assessment Strategies

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Project Work/ Presentation | 10 |

9. Recommended Books, Articles and Reports

Books

- Ahman, J. S. (1981). *Evaluating students' progress: Principles of tests and measurements*. Allyn and Bacon, Inc.
- Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Rath, J., & Wittrock, M. C. (2001). *A taxonomy for learning teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Blerkom, M.L.V. (2009). *Measurement and Statistics for Teachers*. Routledge.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classification of educational goals*. Longmans.
- Boyle, J., & Fisher, S. (2007). *Educational testing: A competence-based approach*. BPS Blackwell.
- Freeman, R., & Lewis, R. (1998). *Planning and implementing assessment*. Kogan Page Limited.

- Gipps, C. V. (1994). *Beyond testing: Towards a theory of educational assessment*. The Falmer Press.
- Harris, D., & Bell, C. (1994). *Evaluating and assessing for learning*, Kogan Page Ltd.
- Hogan, T. P. (2007). *Educational assessment: A practical introduction*. John Wiley & Sons.
- Kubiszyn, T., & Borich, G. (2007). *Educational testing and measurement: Classroom application and practice*. John Wiley & Sons.
- Marzano, R. J., & Kendall, J. S. (2008). *Designing & assessing educational objectives: Applying the new taxonomy*. Corwin Press.
- McMillan, J. H. (2014). *Classroom assessment: Principles and practice for effective standards based instruction*. Pearson.
- Meyer, A., Rose, D.H., & Gordon, D. (2014). *Universal design for learning: Theory and Practice*. CAST Professional Publishing.
- Miller, M. D., Linn, R. L., & Gronlund, N. E. (2012). *Measurement and assessment in teaching*. Pearson.
- Murchan, D., & Shiel, G. (2017). *Understanding and applying assessment in education*. SAGE.
- Reynolds, C. R., Livingston, R. B., & Willson, V. (2009). *Measurement and assessment in education*. Pearson.
- Rowntree, D. (1987). *Assessing Students: How shall we know Them?* Harper & Row Publishers.
- শাহজাহান তপন ও আব্দুর রশিদ (২০০৯), *শিক্ষায় পরিমাপ ও মূল্যায়ন*, ঢাকা: মেট্রো পাবলিকেশন্স।

Articles and Reports

- Ahsan, S., & Smith, W.C. (2016). Facilitating student learning: a comparison of classroom and accountability assessment. In W.C. Smith (Ed.). *The global testing culture: shaping education policy, perceptions and practice* (pp. 131-152). Symposium Books.
- Begum, H. A., & Ahmed, S. S. (2007). Assessment tools used in secondary schools: Do they encourage higher order learning? *NAEM Journal (a Journal of National Academy for Educational Management Ministry of Education)*, 3(5), 7-24.
- Broadfoot, P., & Black, P. (2004). Redefining assessment? The first ten years of assessment in education. *Assessment in Education: Principles, Policy & Practice*, 11(1), 7-26.
- Elkhoury, E. (2020). A Guide to alternative assessment. (version 1). York University. [Guide Alternative Assessments.pdf \(yorku.ca\)](https://www.yorku.ca/guide/alternative-assessments.pdf)
- Faleye, B. A., & Ayelaja, O. R. (2014). Taxonomical analysis of selected teacher-made multiple-choice tests in Obafemi Awolowo University, Nigeria. *Journal of Educational and Social Research*, 4(3), 315 – 324. Retrieved on August 14, 2018 from <http://www.mcser.org/journal/index.php/jesr/article/view/2729>.
- Stanger-Hall, K. F. (2012). Multiple-choice exams: An obstacle for higher-level thinking in introductory science classes. *CBE—Life Sciences Education*, 11, 294 -306.
- Tarrant, M., & Ware, J. (2012). A Framework for improving the quality of multiple-Choice assessments. *Nurse Educator*, 37 (3), 98–104. Retrieved on August 20, 2014 from <http://hdl.handle.net/10722/149231>
- Towns, M. H. (2014). Guide to developing high-quality, reliable, and valid multiple-choice assessment. *Journal of Chemical Education*, 91 (9), 1426–1431.
- Wilmot, J., & Tuson, J. (2005). *Statistical moderation of teacher assessments: A report to the qualifications and curriculum authority*. UK Qualifications and Curriculum Authority.

Website

- York University. (n.d.). Teaching Commons. Retrieved August 7, 2021, from <https://www.yorku.ca/teachingcommons/assessment/>

1. Course Number: PC 118

Course Title: Organisation and Management of Educational Institutions

2. Credit Hours: 4

3. Course Description

The course provides understanding of the basic concept of organisation, educational management, its functions and principles, and educational institutions as social organisations for the beginner students. This course also deals with the organisation and management of physical and social aspects of schools and colleges, organisation and management of curriculum, evaluation and examinations, innovations, co-curricular activities, library and institutional funds. The course is designed to explore the roles and responsibilities of the head of the institutions, leadership qualities, human relations and communications, efficiency, values and ethics in institutional management and administration.

4. Course Objectives

The objectives are to help learners to

- a. Gain knowledge and conceptualise the meaning, theoretical concepts, goals and functions of educational institutions' management, structures and functions at different level.
- b. acquaint themselves with the practices of educational management, structures and functions at different levels and institutional management.
- c. understand the organisation and management aspects of physical facilities of schools and colleges.
- d. gain experience necessary for developing skills on institutional planning, curriculum management, time table construction, academic supervision, organisation and management of evaluation and examination.
- e. develop skills in organising and managing library services, school health services and co-curricular activities.
- f. understand the concept and acquire skills and qualities of effective leader.
- g. realise that acquisition and application of proper values and ethics in management is vital for organisations and education thus to the nation.

5. Course Contents

Contact Hours

Unit 1: Organisation as Social System

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain organisation as a social system
- b. justify educational institutions as social organisations
- c. differentiate identities of social organisation and institution and explain their functions

Content

- Meaning, concept, types and functions of organisation
- Organisation as social system
- Organisation vs institution and their characteristics
- Educational institution as social organisation

Unit 2: Management Structure of Educational Institutions

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of educational administration and management
- b. describe the principles, styles and process of management in educational institutions
- c. identify the administrative structure in different levels in education
- d. explain power and functions of different ministries in education and draw organograms
- e. review the roles of management committees of educational institutions

Content

- Concept of administration and management, educational administration
- Process, functions, principles and styles of management
- Types of administrative and management structure of educational institutions
- Functions and responsibilities of the Ministries of Education and line Directorates
- Management of educational institutions: E-management, Committees, SMCs, CMCs, MMCs, GBs

Unit 3: Role of Heads as Leaders in Educational Institutions

10

Learning Outcomes

At the end of this unit learners will be able to

- a. define concept and styles of leadership
- b. identify skills and attributes of successful leaders
- c. explain roles and responsibilities of head as leaders and decision makers
- d. describe roles of institutional heads in emergencies
- e. demonstrate skills in building human relations and apply as practice for school development
- f. apply leadership skills for school success

Content

- Roles and responsibilities of the institutions
- Role of head as leader and decision maker
- Role of institutional heads in emergencies (Disaster, Pandemic, Post-pandemic & others)
- Meaning and concept and styles of leadership
- Attributes of a successful leader
- Human relations in schools and colleges: staff, pupil, community, parent and government officers

Unit 4: Management of Curricular and Co-Curricular Activities

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the role of management in curricular and co-curricular activities
- b. apply skills in organising and managing curricular and co-curricular activities
- c. develop and apply skills in management of academic calendar, exams and evaluation, and library services

Content

- Time-table management, academic supervision, staff development program
- Management of examination and evaluation
- Library services management
- Management of co-curricular activities

Unit 5: Management of School Funds & Other Resources

5

Learning Outcomes

At the end of this unit learners will be able to

- understand the financial management/budget in educational institutions
- describe importance of institutional plant facilities
- apply gained knowledge and skills in effective management of plant facilities
- prepare an institutional plan for school improvement programs

Content

- Budget, maintenance of accounts and audit
- Institutional plant facilities (site, building, furniture, equipment's library, laboratory, workshop, play-ground, recreational facilities)
- School improvement programs: Institutional planning

Unit 6: Practicum

4

- Development of an institutional plan
- Sketch out academic calendar, school routine
- Case-study, role-playing

6. Instructional Strategies

- Lecture, discussion
- Students report- presentation & discussion
- Practicum
- Library work, reading assignment
- Observation/ attachment
- Case Study role-playing

7. Assessment

- | | |
|--|------------|
| a. Two In-course Examinations | 15 × 2= 30 |
| b. Course Final Examination (MCQ + Essay) | 20+40= 60 |
| c. Assignment: Individual/Group & PPT Presentation | 10 |

8. Recommended Books, Journals and Reports

- Aggarwal, J.C. (1994). *Educational administration, management and supervision*. Arya Book.
- Arlestig, H., Day, C., & Johansson, O. (2016). *A decade of research on school principals: Cases from 24 countries*. Springer.
- Bennett, N., Crawford, M., & Cartwright, M. (eds.). (2002). *Effective educational leadership*. SAGE.
- Bhatt, B. D., & Sharma, S.R. (1992). *Educational administration: Emerging trends*. Kanishkha.
- Bottesy, M. (1992). *The ethics of educational management*. Cassell.
- Bush, T., Bell, L., & Middlewood, D. (2010). *The principles of educational leadership and management*. Sage.
- Everard, K. B., Morris, G., & Wilson, I. (2004). *Effective school management*. Sage.
- Handy C.S. & Aitken R. (1986). *Understanding school as organization*, Penguin.
- Harris, A., Day, C., Hopkins, D., Hadfield, M., Hargreaves, A., & Chapman, C. (2013). *Effective leadership for school improvement*. Routledge.
- Hossain, M.H. (1994). *Traditional culture and modern systems: Administering primary education in Bangladesh*. University Press of America.

- Lunenburg, F., & Ornstein, A. (2011). *Educational administration: Concepts and practices*. Nelson Education.
- Northouse, P. G. (2017). *Introduction to leadership: Concepts and practice*. Sage.
- Peters. H.R. (ed.). (1976). *The Role of head*. Routledge & Kegal Paul.
- Salahuddin, A. (2016). *Making a door: A case study of the leadership and change practices of a principal in Bangladesh* (Doctoral dissertation, The University of Canterbury).
- Sergiovanni, T. J. (1984). Leadership and excellence in schooling. *Educational leadership*, 41(5), 4-13.
- অরুণ ঘোষ (১৯৯২), *বিদ্যালয় সংগঠন এবং পদ্ধতি বিজ্ঞান*, কলকাতা: এডুকেশন এন্টারপ্রাইজ।
- আজহার আলী ও হোসনে আরা বেগম (১৯৯৩), *প্রাথমিক শিক্ষা*, ঢাকা: বাংলা একাডেমী।
- কামরুন্নেসা বেগম ও সালমা আখতার (১৯৯৯), *প্রাথমিক শিক্ষা: বাংলাদেশ*, ঢাকা।
- গৌর দাস হালদার (২০১২) *শিক্ষণ প্রসঙ্গে বিদ্যালয় সংগঠন শিক্ষণ বিজ্ঞান*, কলকাতা: ব্যানার্জী পাবলিশার্স।
- রওশন আরা চৌধুরী (১৯৯৭), *শিক্ষা প্রশাসনের মূলনীতি*, ঢাকা।
- হোসনে আরা বেগম ও মো: জাকির হোসেন (১৯৯৮), *শিক্ষা ও প্রশাসন ও ব্যবস্থাপনা*, ঢাকা।
- Relevant Govt. Documents & Reports, Acts, Regulations.
- Related Journal articles and Websites.

1. Course Number: PC 119

Course Title: Education and Development

2. Credit Hours: 4

3. Course Description

This course is designed to help the learners understand the concepts of development and the role of education in development, especially human resource development and human development. The course also covers development theories and practices in different stages. It emphasizes the reflection of educational planning and programs in the national development of Bangladesh.

4. Course Objectives

The objectives are to help learners to

- a. acquire knowledge and understanding of various concepts and theories of development.
- b. gain an in-depth understanding of the role of education in development, especially in human resource development.
- c. acquaint with the profile of human development in global and particularly in the Asian region.
- d. acquaint with educational programs related to human resource development in Bangladesh.
- e. explore project development processes at the national level, implementation procedures and identify their overall impact.

5. Course Contents

Contact Hours

Unit 1: Concepts, Theories and Issues of Development

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different concepts and dimensions of development
- b. describe various ideas and theories of development
- c. explore various ideas and theories of development
- d. analyze different aspects of development

Content

- Meaning, concepts and dimensions of development
- Terminologies in Development
- Different ideas of development: Concepts of underdeveloped, developing and developed countries
- Theories of development: W.W. Rostow's Stages of Economic Growth, Structural Change Model, Marxist view, Dependency Theory of Development, Modernization Theory and Human Capital Theory
- Recent trends in development: Human development theory and Sustainable development
- Issues in development (individuals, classes, gender, ethnic groups etc.)
- Development as a whole and Truncated Development
- SDG as a target for the development

Unit 2: Indicators of Development

5

Learning Outcomes

At the end of this unit learners will be able to

- a. identify indicators of development
- b. explain the economic and social indicators of development

Content

- Indicators of Development
- Economic Indicators of Development: National Development as Economic Process: GDP, GNP, Per-Capita Income (PI), Income inequality: Gini Coefficient & Gini Index
- Social Indicators of Development: Life expectancy, Knowledge, Quality of life/standard of living

Unit 3: Human Resource Development & Human Development

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of human development in global and Asian contexts
- b. identify the components of the HD Index
- c. distinguish the differences among Population, Human Resource & Human Capital

Content

Human Resource Development (HRD)

- Concepts and meanings
- Population, Human Resource & Human Capital

Human Development (HD)

- Origin of the concept and its relation to other concepts and strategies of development
- Various aspects and factors of HD
- Indicators and Index (HDI)
- Profile of development and HD (Very high, high, medium and low index countries with particular reference to Asian region)

Unit 4: Development Process and Plans in Bangladesh

10

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the development process and implementation procedure in Bangladesh
- b. analyze the role of educational programs related to development in Bangladesh
- c. apply the knowledge and skills in developing proposals in the aspect of education

Content

National Development: Planning, Process, Roles and Responsibilities

Ministry of Planning

- Structure: Planning Commission, National Economic Council (NEC) & ECNEC
- Vision 2030, Vision 2041
- Perspective plan, Five-year plan, ADP

Ministry of Primary and Mass Education

- Directorate of Primary Education (DPE)

Ministry of Education

- Directorate of Secondary & Higher Education (DSHE)
- Directorate of Technical & Vocational Education
- Directorate of Madrasa Education
- University Grants Commission (UGC)

Current development Initiatives in Education

- Projects and Programs in Primary, Secondary and Higher education
- Implementation procedures and impact of the development projects

Unit 5: Role of Education in Development

9

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the impact of formal education on development
- b. analyze the importance of non-formal education in development
- c. describe the role of technical & vocational education in development
- d. explain the impact of women's empowerment in national development
- e. critically analyze the progress and challenges in Sustainable Development of Bangladesh

Content

Role of Formal Education in Development

- Role of Primary, Secondary and Higher/Tertiary Education

Role of Non-formal and Continuing Education in Development

- Role of Non-formal education, Population Education, Health and Nutrition Education
- Education programs for the youth and disadvantaged groups

Role of Technical & Vocational Education in Development

- Skill development in TVET

Role of Education in Emergencies (EiE) and refugee education in development

- Human resource development to manage EiE and refugee education situation

Role of Education in and Challenge Women's Empowerment & Development Progress (and Challenges in Educational Development)

- Women's Empowerment and Education
- Role of Education in Development Progress
- Challenges in Educational Development

6. Instruction Strategies

- a. Lecture
- b. Group discussion
- c. Class presentation
- d. Journal reading
- e. Project development/Field experience

7. Assignment

- a. Reflected assignment on educational development issue

8. Assessment

- a. Two In-course Examinations 15×2=30
- b. Course Final Examination (MCQ + Essay) 20+40= 60
- c. Assignment/Presentation 10

9. Recommended Books, Journals and Reports

Blewitt, J. (2018). *Understanding Sustainable Development*, 3rd ed. Earthscan.

Branco, A. U., & Lopes-de-Oliveira, M.C. (2017). *Alterity, Values, and Socialization: Human Development Within Educational Contexts*. Basingstoke: Springer.

Garrett, M. R. (2014). *Education and Development*. London: Routledge.

- General Economics Division, Bangladesh Planning Commission (2020). Government of the People's Republic of Bangladesh. *8th Five Year Plan, July 2020-June 2025: Promoting Prosperity and Fostering Inclusiveness*. Dhaka: General Economics Division, Bangladesh Planning Commission, Government of the People's Republic of Bangladesh.
- Giugale, M. M. (2017). *Economic Development: What Everyone Needs to Know*. New York: Oxford University Press.
- James, H. (2019). *Population, Development, and the Environment: Challenges to Achieving the Sustainable Development Goals in the Asia Pacific*. Basingstoke: Springer.
- Jensen, L.A. (2015). *The Oxford Handbook of Human Development and Culture: An Interdisciplinary Perspective*. New York: Oxford University Press.
- Kail, R.V., & Cavanaugh, J.C. (2018). *Human Development: A Life-Span View*. Boston: Cengage Learning.
- Khalakdina, M. (2008). *Human Development in the Indian Context: A Socio-cultural Focus*. New Delhi: Sage Publications.
- Land, R. (2004). *Educational Development: Discourse, Identity and Practice*. Milton Keynes: McGraw-Hill Education.
- Lynch, J., Modgil, C., & Modgil, S. (1998). *Education and Development: Innovations in delivering primary education*. London: A&C Black.
- Meece, J.L., & Eccles J.S. (2010). *Handbook of Research on Schools, Schooling and Human Development*. London: Routledge.
- Rahman, A. (2002). *Education for Development: Lessons from East Asia for Bangladesh*. Pasir Panjang: Institute of Southeast Asian Studies.
- Sachs, J.D. (2015). *The Age of Sustainable Development*. New York: Columbia University Press.
- Salkind, N. J. (2006). *Encyclopedia of Human Development*. Thousand Oaks: Sage Publications.
- Servaes, J. (Ed.). (2017). *Sustainable Development Goals in the Asian Context*. Basingstoke: Springer.
- Silbereisen, R. K., & Chen, X. (2010). *Social Change and Human Development: Concept and Results*. Thousand Oaks: Sage Publications.
- Simi, M., Kumar, V., & Kumar, A. (2018). *Lessons in Sustainable Development from Bangladesh and India*. Basingstoke: Springer.
- Slote, M. (2016). *Human Development and Human Life*. Basingstoke: Springer.
- Tilak, J.B. (2019). *Education and Development in India: Critical Issues in Public Policy and Development*. London: Palgrave MacMillan.
- Tilak, J.B. (1994). *Education for Development in Asia*. New Dehli: SAGE Publications.
- United Nations Development Programme (2021). *Human Development Report 2020: The Next Frontier: Human Development and the Anthropocene*. New York: United Nations Development Programme.
- United Nations Educational, Scientific and Cultural Organization (2020). *Global Education Monitoring Report 2020: Inclusion and Education: All Means All*, 3rd ed. Paris: United Nations Educational, Scientific and Cultural Organization.
- United Nations Publications, (Ed.). (2019). *The Sustainable Development Goals Report 2019*. United Nations.
- United Nations Publications (Ed.). (2018) *The Sustainable Development Goals*. Madison: United Nations.
- Verger, A., Novelli, M., & Altinyelken, H.K. (2012). *Global Education Policy and International Development: New Agendas, Issues and Policies*. London: A&C Black.

- Weert, T.J. (Ed.). (2004). *Education and the Knowledge Society: Information Technology Supporting Human Development*. Berlin: Springer Science & Business Media.
- World Bank (2021). *World Development Report 2021: Data for Better Lives*. Washington, DC: World Development Report.
- Yülek, M.A. (2019). *How Nations Succeed: Manufacturing, Trade, Industrial Policy, and Economic Development*. London: Palgrave MacMillan.
- আলী আসগর (২০১১), *শিক্ষা ও উন্নয়ন প্রত্যাশা*, ঢাকা: আগামী প্রকাশনী।
- আবু হামিদ লতিফ (২০০৩), *শিক্ষা উন্নয়ন পরিকল্পনা*, ঢাকা: প্যাপিরাস।
- কবীর চৌধুরী (২০১০), *জাতীয় শিক্ষানীতি ২০১০*, ঢাকা: শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- মুহাম্মদ কুদরাত-এ-খুদা (১৯৭৪), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: বাংলাদেশ সরকারি মুদ্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।

1. Course Number: PC 120

Course Title: Introduction to Curriculum

2. Credit Hours: 4

3. Course Description

This is an introductory course on Curriculum. The course is designed to develop clear knowledge and understanding of the learners about the concept of curriculum and its major elements and get an overall view of the curriculum development process. The prevalent curricula of different levels of education have been highlighted with due emphasis on their major strengths and weaknesses.

4. Course Objectives

The objectives are to help learners to

- a. attain clear understanding and knowledge on the concept of curriculum.
- b. acquaint with the major elements of curriculum and the curriculum process.
- c. acquaint with the curricula of different levels of education in Bangladesh.
- d. identify and analyze major strengths and weaknesses of the prevalent curricula and suggest possible ways of overcoming the weaknesses and their further development.

5. Course Contents

Contact Hours

Unit 1: Concept of Curriculum

7

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept, nature, scope and characteristics of curriculum
- b. differentiate the term curriculum and syllabus
- c. identify the relationship among the components of curriculum
- d. explain the different basis of curriculum with example

Content

- Curriculum: Origin, meaning, concept, nature and scope
- Connotation of the term curriculum in historical perspective (narrower to wider)
- Curriculum and Syllabus
- Components and characteristics of curriculum
- Foundation of Curriculum: philosophical, psychological, sociological and historical

Unit 2: Curriculum and Related Concepts

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the interrelationship among different terminologies of curriculum
- b. describe different types of curriculum
- c. identify the role of co-curricular activities for personal development

Content

- Intended, Enacted and Achieved curriculum
- Types of Curriculum:
 - Centralized, Semi-centralized and Decentralized curriculum
 - Content based curriculum, Learner centered curriculum, Activity based curriculum, Core Curriculum, Integrated Curriculum
 - Competency based and Outcome based curriculum

- Streaming
- Unified and Diversified curriculum
- Hidden curriculum
- Null curriculum
- Balanced curriculum
- Discipline and Co-relation among discipline
- Cross curricular approach
- Co-curricular activities

Unit 3: Curriculum Development Process

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the major elements of curriculum and their interrelationship
- b. explain the background of curriculum development
- c. describe the principles of curriculum planning and development
- d. explain the needs and tasks of situation analysis
- e. prescribe curriculum development model for Bangladesh on the basis of selected models
- f. formulate the aims and objectives according to different sources, classification and domains of learning
- g. select and organize the contents
- h. explain the development process of instructional materials
- i. select and organize the instructional strategies
- j. describe the evaluation and assessment techniques
- k. discuss the dissemination processes of curriculum
- l. discuss the implementation process and monitoring techniques
- m. explain the need for continuous change and development of curriculum

Content

- Major elements of curriculum
- Situational analysis: components of situation and tasks of analysis
- Some selected Models: objective model (Tyler, Hilda Taba), cyclic model (Wheeler, Nicholls & Nicholls, Print), Interactive model (Walker, John Kerr)
- Formulation of educational aims and objectives: sources of objectives, classification and domains of objectives, developing competency and learning outcomes
- Selection and organization of contents
- Development of instructional materials
- Selection and organization of instructional strategies
- Assessment techniques of student learning
- Curriculum dissemination
- Implementation and monitoring
- Curriculum as a continuous process: need for change, evaluation of curriculum, revision, modification and renewal of curriculum

Unit 4: Curriculum for Pre-primary and Primary Education of Bangladesh

9

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the origin and background of pre-primary and primary curriculum

- b. explain aims and objectives competency, terminal competencies, subject wise terminal competencies and class wise terminal competencies
- c. explain the causes of modification and changes of primary curriculum
- d. identify some special features of modified primary curriculum
- e. describe the structure of subject curriculum
- f. explain the teaching-learning methods and techniques in prescribed curriculum
- g. describe present assessment practice of the primary curriculum
- h. identify the major strengths and weaknesses of the primary curriculum
- i. suggest possible ways of overcoming the weaknesses and their further development

Content

- Background: pre-primary and primary curriculum
- Main features of present pre-primary curriculum
- Main features of present primary curriculum
- Critical analysis of the curriculum: identification of strengths and weaknesses, possible solutions of problems and suggestions for improvement
- Suggestions for overcoming weaknesses and further improvement

Unit 5: Curriculum for Secondary Education

9

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the origin and background of secondary curriculum
- b. explain aims and objectives of secondary curriculum
- c. explain different terms of secondary curriculum
- d. explain the causes of modification and changes of secondary curriculum
- e. identify some special features of modified secondary curriculum
- f. describe the structure of subject curriculum
- g. explain the teaching-learning methods and techniques in curriculum
- h. identify instructional materials of curriculum
- i. describe present assessment practice of the secondary curriculum
- j. identify the major strengths and weaknesses of secondary curriculum
- k. suggest possible ways of overcoming the weaknesses and their further development

Content

- Background of secondary curriculum
- Main features of secondary curriculum
- Critical analysis of the curriculum: identification of strengths and weaknesses
- Suggestions for overcoming weakness and further improvement

6. Instructional Strategies

- a. Lecture followed by group discussion
- b. Question-answer
- c. Guided discussion
- d. Visit to NCTB and Schools
- e. Reading assignment: Curriculum Reports

7. Assignment

- Formulating specific-behavioral objectives of a given general objective
- Review of curriculum of one subject of any class

8. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

9. Recommended Books, Journals and Reports

- Allam, C. Ornstein, Francis P. Hunkins (2017), *Curriculum: Foundations, Principles and Issues*, 7th edition. Pearson Education, Inc.
- Armstrong David, G. (1989), *Developing and Documenting the Curriculum*, Allyn and Bacon.
- Ehasan, Md Abul (1997), *Curriculum Development Policy and Methodology* (in Bangla: শিক্ষাক্রম উন্নয়ন: নীতি ও পদ্ধতি), Dhaka: Sattrabondu Library.
- Euring, Robyn, (2013), *Curriculum and Assessment* 2nd edition, Oxford University Press.
- Kelly, A. V. (1977), *The Curriculum: Theory and Practice*, New York: Harper and Row Publishers.
- Lewy, A. (1977), *Planning the School Curriculum*, Paris: UNESCO.
- Lewy, Arich (1977), *Handbooks of Curriculum Evaluation*. UNESCO.
- Marsh, C. J. Key (1992), *Concepts for Understanding Curriculum*. London: The Falmer Press.
- Motaher Hossain, M. & Khatun, J.A(2021) *Learning theory and Social Constructivism*, Mymensingh: Razia-Mofiz Foundation.
- NCTB (2021) National Curriculum Framework 2021, National Curriculum and TextBook, Dhaka.
- NCTB (1974, 1988, 1997, 2011, 2012 and 2021) National Curriculum at Primary, Secondary and higher secondary level, National Curriculum and Textbook, Dhaka.
- Ohab Mia, M.A. (2004), *Curriculum Development and Evaluation* (in Bangla: শিক্ষাক্রম প্রণয়ন ও মূল্যায়ন), Dhaka: Bangla Academy.
- Oliva, P. F (2002), *Developing the curriculum* (5th ed.). New York: Addison Wesley.
- Posner, G. J and Rudnitsky A.N (1986), *Course Design: A Guide to Curriculum Development for Teachers*, New York: Longman.
- Pratt, David, (1980), *Curriculum: Design and Development*, Harcourt Brace Jovanovice.
- Seguin, R. (1991). *Curriculum Development and Implementation of Teaching Programmes: Methodology Guided*, Paris: UNESCO.
- Seguin, R. (1991), *Curriculum Development and Implementation and Teaching Programmes*, UNESCO, ED/WS-17.
- Rahman, Siddiqur (1987), *Curriculum Process*, Dhaka: Bishaw Parichaya.
- Taba. H. (1972), *Curriculum Development: Theory and Practice*.
- Tyler, R. W. (1949), *Basic Principles of Curriculum and Instruction*, Chicago.
- Related Websites.

1. Course Number: PC 121

Course Title: Value Education

2. Credit Hours: 4

3. Course Description

This course is designed to help prospective educators understand the importance and ways of developing students' values through education. The course starts with an understanding of the relationships among different affective constructs including values, morals, ethics, attitudes and beliefs. Then the course progresses towards providing a detailed account of sources of values, historical evolution of value education and contemporary theories of values development. The course also includes development of values through curricular and co-curricular activities and studying great lives and religions.

4. Course Objectives

The objectives are to help learners to

- a. understand basic concepts of values and other affective constructs.
- b. expand knowledge and understanding about evolution of value education and approaches of value development.
- c. comprehend development of values through curricular and co-curricular activities and studying great lives and religions.
- d. expand ability to identify values and strategies for developing values in the existing curricula at primary and secondary education level in Bangladesh.
- e. develop knowledge about importance and ways for enhancing values through reading children literature and studying different school subjects.

5. Course Contents

Contact Hours

Unit 1: Fundamentals of Value Education

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic concepts, nature and scope of value education
- b. explain the taxonomy of affective learning domain and relate to learning value
- c. discuss differentiating values from other affective characteristics
- d. identify and discuss different types of values
- e. explain the sources of values

Content

- Basic concept; nature and scope of value Education
- Taxonomy of affective learning and learning values
- Differentiating values from other affective constructs
- Types of values
- Source of values
- Competition and conflicts of values

Unit 2: Evolution and Approaches of Developing Values

8

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the evolution of value education especially in the context of ancient Greek Civilization
- b. analyze the contemporary theories and approaches of value development
- c. explain value mediation process through different tiers of curriculum

Content

- Evolution of value education: Greek origin, religious tradition
- Contemporary theories and approaches of value development
 - a. The Interest Theory
 - b. Experimental Theory
 - c. Part-Whole Theory
 - d. Intuitionist Theory
 - e. Rigourist Theory
 - f. Legalistic Theory
 - g. Idealistic Theory
 - h. Religious Theory
 - i. Theory of Social Morality
 - j. Theory of Personal Development
 - k. Value clarification
 - l. Kohlberg's Theory of Moral Development
- Value mediation process through different tiers of curriculum

Unit 3: Development of Values from the Study of Great Lives

8

Learning Outcomes

At the end of this unit learners will be able to

- a. identify and describe the values that the great lives practiced through their words and work
- b. demonstrate relevant values in real life situations

Content

- Hazrat Muhammad (SM)
- Goutam Buddah
- Jesus Christ
- Bangabandhu Sheikh Mujibur Rahman
- Begum Rokeya
- Ishwar Chandra Biddaysagor
- RabindraNath Tagore
- KaziNajrul Islam
- Confucius
- Lalon Shah
- Mother Teresa
- Nelson Mandela
- Raja Ram Mohan Roy

Unit 4: Development of Values from Study of the Religions

8

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the tenets and values in major religions
- b. respect tenets and values of all religions

Content

- Tenets/beliefs and values in major religions
- Islam
- Hinduism
- Buddhism
- Christianity

Unit 5: Development of Values through Schooling

8

Learning Outcomes

At the end of this unit learners will be able to

- identify the values in the existing curricula at primary and secondary education level in Bangladesh
- explain the methods and techniques in the existing primary and secondary level curricula for inculcating values in the children
- analyse the significance and way of developing values through children's literature
- analyse the strategy for developing values among the students by studying different school subjects
- practice and encourage children to practice developing values through co-curricular activities

Content

- Values in school curricula of Bangladesh
- Development of values through children's literature
- Development of values by studying school subjects: Science, Social Science, language and literature, Music and Arts
- Development of values through co-curricular activities

6. Instructional Strategies

- Discussions employing question answer and think-pair-share techniques
- Involving students in pair and group work and presentations
- Integrating ICT in teaching-learning process

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books and other Resources

- Ali, M. M. (1990). *The Religion of Islam*. Lahore: Ahmadiyya Anjuman Ishaat-e-Islam.
- Badlani, G. H. (2014). *Essence of Hinduism: Path of The Ancient Wisdom*. Scotts Valley, CA: Create Space.
- Basu, D. D. (1991). *Essence of Hinduism*. Kerala: TBS Publishers.
- Beck, L. G. and Murphy, J. (1994.) *Ethics in Educational Leadership Programs: An Expanding Role*. Thousand Oaks, CA: Corwin Press.
- Begum, H. (2002). *Ethics in Social Practice*. Dhaka: Academic Press.
- Bloom, A. (1987). *The Closing of The American Mind*. New York: Simon and Schuster.

- Choudhuri, I. (2005). Promoting values through children's literature. *Journal of Value Education*. NCERT. p. 29-36.
- Giddens, A. (1991). *Modernity and Self-identity: Self and Society in the Late Modern Age*. Redwood City, CA:Stanford University Press.
- Freidson, E. (1994). *Professionalism Reborn: Theory, Prophecy and Policy*. Chicago, Smith, P. G. (IL: The University of Chicago Press.
- Freidson, E. (1970). *Profession of Medicine: A study of the Sociology of Applied Knowledge*. Manhattan, NY: Harper and Row Publishers.
- Gupta, N. L. (2000). *Human Values in Education*. New Delhi: Concept Publishing Company
- Hossain, M. H. (1994). *Traditional Culture Modern Systems: Administering Primary Education in Bangladesh*. Lanham, MD: University Press of America.
- Jarret, J. L. (1991). *The Teaching of Values - Caring and appreciation*. London: Routledge.
- Krathwohl, D. R., Bloom, B.S., and Masia, B.B. (1964). *Taxonomy of educational objectives: Handbook II: Affective domain*. New York: David McKay Co.
- Nucci, L. P. & Narvez, D. (2008). *Handbook of Moral and Character Education* (Eds.) New York: Routledge.
- Otten, E. H. (2002). *Developing Character through Literature: A Teacher's Resource Book*. Bloomington: ERIC Clearinghouse on Reading, English, and Communication.
- Rae, S. B. (2018). *Moral Choices: An Introduction to Ethics* (4th ed.). Grand Rapids, MI: Zondervan Academic.
- Rokeach, M. (1973). *The Nature of Human Values*. New York: The Free Press.
- Smith, P. G. (Eds.). *Theories of Value and Problems of Education*. Urbana: University of Illinois Press.
- Tanaka, Y. E. (2014). *The Book of Values: An Inspirational Guide To Our Moral Dilemmas*. Scotts Valley: CreateSpace.

1. Course Number: PC 122

Course Title: Gender Education

2. Credit Hours: 4

3. Course Description

This course introduces the students with the concept and idea of gender education as a new discipline. Gender and its different connotations and situations in different societies in the context of development perspective have been highlighted in this course. The course also focuses on the different aspects of the rights of women and their actual position in the society. Through this course the students get comprehensive knowledge about the relationship between gender development and education. The course also provides students with knowledge to develop a positive attitude to all gender related issues prevailing in the society with a specific focus on gender and emergency.

4. Course Objectives

The objectives are to help learners to

- a. describe the basics concepts and importance of Gender Education.
- b. discuss the development of Gender Education as a separate discipline.
- c. explain the situation of gender in Bangladesh and other societies.
- d. draw analysis on the basis of gender discrimination regarding legal rights and responsibilities.
- e. define the position of men, women and transgender in social development.
- f. comprehend the relationship between gender and education.
- g. develop a positive attitude to gender related issues prevailing in the societies in peace and emergency.

5. Course Contents

Contact Hours

Unit 1: Introduction to Gender

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic concepts related to gender
- b. analyze man-woman relationship in relation to different stages of social development

Content

- Concept of Understanding gender and sexuality
- Concept of transgender, The Other Gender
- Biological, psychological, social and cultural interpretation of gender
- Women and gender; Are they synonymous?
- Gender related major concepts: Patriarchy, Gender role, Gender stereotype, Gender division of labor, Gender needs (both practical and strategic), Equality, Equity Awareness/sensitization, Empowerment and Gender development, Gender lens, Gender neutrality, Gender balanced approach, Gender audit, Intersectionality
- Stages of social change and man-woman relations

Unit 2: Gender Education: Concept and Vision

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the origin and development of gender education
- b. relate gender education with other disciplines
- c. analyze the role of curriculum and hidden curriculum in relation to gender education
- d. critically review state education policies in relation to gender

Content

- Origin and development of gender education
- Importance, scope and objectives
- Relations with other disciplines
- Role of the family, school and society
- Socialization and learning genders
- Role of the curriculum and hidden curriculum
- State education policies and gender
- Diversity and gender inclusive school

Unit 3: Socio-Cultural Dimensions

6

Learning Outcomes

At the end of this unit learners will be able to

- a. critically analyze the socio-cultural dimensions of gender
- b. explain the situations of deprivations of gender in all aspects of life
- c. describe the nature of gender based violence and sexual harassment
- d. evaluate the role of Gender Management System (GMS) and education to overcoming the vulnerable situation

Content

- Marriage and family: Patriarchy and Matriarchy
- Social values, social division of labor, and participation in social life
- Social perspective of transgender
- Gender segregation and discrimination in all aspects of life
- Gender based violence and sexual harassment: Family, workplace, peers, educational institutions, transport, cyber space and the role of media to instigate/ prevent violence/ harassment
- Gender Management System (GMS) Role of education in improving the situation

Unit 4: Political, Economic and Legal Dimensions

6

Learning Outcomes

At the end of this unit learners will be able to

- a. critically analyze the political, economic, and legal dimensions of gender
- b. explore legal rights of gender and opportunities of access to legal aids

Content

- Gender in politics: states policies, political rights, decision making and participation
- Economic rights and opportunities: Decision making and participation in economic activities
- Legal right and gender: family and personal law, legal rights, access of women to legal aids
- Role of education in understanding of gender rights and opportunities

Unit 5: Gender and Development

6

Learning Outcomes

At the end of this unit learners will be able to

- a. critically relate gender with development
- b. discuss different gender related development index
- c. review global policies and conventions in relation to gender

Content

- Concept and Policy: gender and development
- Human Development: Gender Perspectives
- Gender-related Development Index (GDI): Women in Development (WID), Women and Development (WAD), Women, Environment and Development (WED), Gender and Development (GAD), Gender Empowerment Measure (GEM)
- United Nations and International Conventions, CEDAW
- Gender in MDGs, SDGs-recent global policies regarding gender and education
- Transgender in global perspective

Unit 6: Gender and Development in Bangladesh: Issues and Status

6

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the status and issues regarding gender and development in Bangladesh
- b. critically review different national policies in relation to gender and development

Content

- National gender policy, Gender and inclusive action plan in Education
- Policies, programs, Issues in gender and development
 - a. National Focal Point
 - b. National Action Plan (NAP)
- Role of NGOs in gender education and women's development
- Acts and policies regarding transgender

Unit 7: Gender in disaster, emergence and pandemic

4

Learning Outcomes

At the end of this unit learners will be able to

- a. understand the impact of disaster, emergence and pandemic on gender issues
- b. analyze the measures taken for confronting emergency and pandemic outcomes on Gender

Content

- Gender issues in natural disasters
- Gender situation in war, conflict and emergence
- Implication of pandemic on gender
- Designing Gender-Sensitive Prevention campaigns

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Project Work
- d. Question Answer
- e. Debate
- f. Seminar

7. Assessment

- | | |
|---|------------|
| a. Two In-course Examinations (15 × 2) | - 30 Marks |
| b. Semester Final Examination (MCQ + Essay) | - 60 Marks |
| c. Assignments / Presentation | - 10 Marks |

8. Recommended Books, Journals and Reports

- Bhashin, Kamala (1993), *What is Patriarchy*, New Delhi: Kali for Women.
- Boserup, Ester (1971), *Women's Role in Economic Development*, London: George Allen and Unwin Ltd..
- Duza, Asfia, Hamid A. Begum (1993), *Emerging New Accents: A Perspective of Gender and Development in Bangladesh*, Dhaka: Women for Women.
- Gender Resource Pack (2006) Promote Govt. of Bangladesh. Dhaka.
- Haider, M. S. (2019), Framing disability and gender into intersectionality theory: An analytical review. *International Journal of Science and Research (IJSR)*. 8 (10): 1630-1635. 10.21275/ART20202305.
- Joytimitra Ed. (1997), *Women and Empowerment in Bangladesh*, Dhaka: BIDS.
- Karl, Marilee (1995), *Women and Empowerment-Participation and Decision Making*, *Women and World Development Series*, Zed Book Ltd.: New Jersey.
- Kristal, Tali, & Yaish, Meir. (2020). Does the corona virus pandemic level the gender inequality curve? (It doesn't). *Research in Social Stratification and Mobility*, 68, 100520. <https://doi.org/10.1016/j.rssm.2020.100520>.
- Mahmud, Simeen (1990), *Women and Society: Equality and Empowerment*, New Delhi: Kanika Publishing.
- Mahtab, Nazmunnessa (2015), *Women, gender and development: Contemporary issues*, Dhaka: AH Development Publishing House.
- Moster, Carolin O.N. (1994), *Gender and Development- Theory Practice and Training*. New York: Routledge.
- Renzetti, C, and Curran, D (2003), *Women, Men and Society (5th Ed.)*, Boston: N. Y.: A & B Publishers.
- Sobhan, Rehman (1990), *Planning for Women in Asia*, Dhaka: University Press Limited.
- UNESCO (2002), *Gender in Education*, Network in Asia (GENEVA).
- UNICEF, *The Situation of Women in Bangladesh*, Dhaka.
- United Nations (1997), *Women in Emergencies*, Geneva: UN.
- Wenham, C., Smith, J., & Morgan, R. (2020). COVID-19: the gendered impacts of the outbreak. *The Lancet*, 395 (10227), 846-848.
- World Health Organization. (2020). *Gender and COVID-19: advocacy brief, 14 May 2020* (No. WHO/2019-nCoV/Advocacy_brief/Gender/2020.1).
- এম তারিক আহসান ও ম, মাহবুবুর রহমান (২০২২), কোভিড পরবর্তী শিক্ষা ও শিখন কৌশল। ঢাকা: লিপিকার।
- উর্মি রহমান (২০০০), *পাশ্চাত্য নারী আন্দোলন*, ঢাকা: সাহিত্য প্রকাশ।
- কমলা ভাসিন ও নিখাত সাইদ খান (২০০২), *নারীবাদ বিষয়ে কিছু প্রশ্ন*, ঢাকা: প্রশিকা মানবিক উন্নয়ন কেন্দ্র।
- জাতিসংঘ (১৯৯৭), *জাতিসংঘ চতুর্থ বিশ্ব নারী সম্মেলন*, ঢাকা: রাজকীয় ডেনমার্ক দূতাবাস।
- নিশাত জাহান রানা (২০১৮), *জেন্ডার কোষ*, ঢাকা: যুক্ত প্রকাশনা।
- নাসিম আনোয়ার (২০১৯), *জেন্ডার এবং সামাজিক বৈষম্য*, ঢাকা: তৃণতলা প্রকাশ।
- মাহমুদা ইসলাম (২০০২), *নারীবাদী চিন্তা ও নারী জীবন*, ঢাকা: জে-কে এন্ড পাবলিকেশন্স।
- মালেকা বেগম (২০০২), *নারী আন্দোলনের পাঁচ দশক*, ঢাকা: অন্য প্রকাশ।
- মাসুদুজ্জামান, (২০১৮), *পুরুষতন্ত্র ও যৌন রাজনীতি*, ঢাকা: পাঞ্জেরী পাবলিকেশন্স।
- শাহীন রহমান, (১৯৯৮), *জেন্ডার প্রসঙ্গ*, ঢাকা: স্টেপস টু ওয়ার্ডস ডেভেলপমেন্ট।
- শাহীন রহমান (সম্পাদিত) (২০০০), *নারীর অগ্রযাত্রা: বেইজিং থেকে নিউইয়র্ক*, ঢাকা: স্টেপস টু ওয়ার্ডস ডেভেলপমেন্ট।

সুলতানা কামাল (২০১০), নারী, মানবাধিকার ও রাজনীতি, ঢাকা: ইত্যাদি গ্রন্থ প্রকাশ।
সেলিনা হোসেন, (সম্পাদিত) ২০১৯, হিজড়া শব্দকোষ, সময় প্রকাশন, ঢাকা।
সেলিনা হোসেন, মাসুদুজ্জামান, ও ঋতু অনিকেত (সম্পাদিত) (২০০৭) জেডার ও আর্থ-সামাজিক উন্নয়ন, ঢাকা: মাওলা ব্রাদার্স।
সেলিনা হোসেন ও মাসুদুজ্জামান (সম্পাদিত) (২০০৩), নারী ক্ষমতায়ন রাজনীতি ও আন্দোলন, ঢাকা: মাওলা ব্রাদার্স।
সেলিনা হোসেন ও মাসুদুজ্জামান (সম্পাদিত) ২০০৬, জেডার বিশ্বকোষ, ঢাকা: মাওলা ব্রাদার্স।
সেলিনা হোসেন, সালমা আখতার ও মাসুদুজ্জামান (২০০৭), পুরুষতন্ত্র, নারী ও শিক্ষা, ঢাকা: মাওলা ব্রাদার্স।
সুলতানা জেসমিন (২০১৬), বাংলাদেশের শিক্ষানীতি ও নারীশিক্ষা, ঢাকা: ঐতিহ্য।

1. Course Number: PC 123

Course Title: Environmental Education

2. Credit Hours: 4

3. Course Description

This course has been designed to prepare students to plan and implement Environmental Education opportunities in formal and non-formal education settings. Contents of this course include concept of Environment, Environmental Science, Environmental Education, Environmental Literacy, evolution of EE, elements and organization of EE curriculum, teaching-learning strategies and assessment in EE, opportunities & current scenarios of Environmental Education in Bangladesh, Health and Population Education and Disaster Risk Education in Bangladesh.

4. Course Objectives

The objectives are to help learners to

- a. understand the relationships among Environment, Environmental Science and Environmental Education.
- b. understand and appreciate the mutual relationship between nature and human.
- c. analyze the evolution of Environmental Education.
- d. comprehend the importance of education to foster a healthy environment for sustainable development.
- e. design curriculum for Environmental Education.
- f. critically analyze environmental education opportunities in formal and non-formal education settings in Bangladesh.
- g. critically analyze opportunities for Health and Population Education, and Disaster Risk Reduction in school curricula in Bangladesh.

5. Course Contents

Contact Hours

Unit 1: Concepts of Environmental Education (EE)

9

Learning Outcomes

At the end of this unit learners will be able to

- a. identify foundations and goals of Environmental Education
- b. explain how the field of Environmental Education is being evolved
- c. explain the importance of developing an environmentally literate populace

Content

- Concept of Environment, Environmental Science, Environmental Education, Environmental Literacy
- Aims and Objectives of EE: Attaining Environmental Literacy
- Evolution of EE and EE goals: From Nature study to Education for Sustainable Development; EE for achieving Sustainable Development Goals (SDGs)

Unit 2: Environmental Education - Curriculum and Implementation

11

Learning Outcomes

At the end of this unit learners will be able to

- a. develop, analyze and evaluate curricula and teaching learning strategies to achieve Environmental Education goals for all learners
- b. locate and use Environmental Education teaching and learning materials
- c. integrate instructional technologies into Environmental Education settings
- d. develop and apply assessment tools for assessing environmental literacy

Content

- Environmental Education curriculum: Guiding principles, selecting intended learning objectives, organization of content
- Environmental Education: Teaching learning principles and strategies, Instructional materials for EE
- Assessing EE
- Challenges in teaching and learning of EE

Unit 3: Environmental Education Context in Bangladesh

12

Learning Outcomes

At the end of this unit learners will be able to

- a. critically examine environmental issues affecting nature & people of Bangladesh
- b. explain the importance of conservation of environment
- c. explain the national picture of environmental policy in Bangladesh

Content

- Environmental Issues in BD: Ecosystem imbalance, water pollution in Bangladesh, air pollution in cities, climate change, sound pollution, soil pollution and waste management
- Conservation of Environment
- EE in curricula in Bangladesh: Intended learning objectives, content and organization, comparison with other curricula
- EE through non formal education in Bangladesh
- The national picture of Environmental policy in Bangladesh

Unit 4: Health Education, Population Education, Disaster Risk Reduction

10

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze & incorporate population, health, family life & disaster risk reduction education in curriculum
- b. develop teaching learning strategies for population, health & disaster risk reduction education

Content

- Population Education: Population growth, development and environment, population policy, population education in the curriculum
- Health Education: Environment and health, Health issues due to environmental pollution in Bangladesh, Health education in curriculum
- Disaster risk reduction education: Education in Emergency, education for reducing risks for the children

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Case Studies
- d. Group Work

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Allitt, P. (2014). A climate of crisis: America in the age of environmentalism. *Penguin*, 1-2.
https://wwwbis.sidc.be/users/dammasch/IED_20180206_Environmentalism.pdf.
- Carson, R. (2002). *Silent Spring*. Houghton Mifflin Harcourt.
https://library.uniteddiversity.coop/More_Books_and_Reports/Silent_Spring-Rachel_Carson-1962.pdf.
- Cunningham, W., & Cunningham, M. (2004). *Principle of Environmental Science*. Tata-McGraw Hill Publishing Company Limited.
- Cunningham, W. P., & Saigo, B. W. (1999). *Environmental Science*. McGraw-Hill.
<http://nationalheaters.com/sites/default/files/webform/pdf-environmental-science-william-cunningham-mary-cunningham-pdf-download-free-book-60c2f8c.pdf>.
- Dyke, F. (2008). *Conservation Biology – Foundations, Concepts and applications*. Springer Science - Business Media.
- Green, J. (2015). *The Environmental Curriculum*. National Association for Environmental Education. https://naee.org.uk/wpcontent/uploads/2015/06/NAEE_The_Environmental_Curriculum.pdf.
- Humes, E. (2012). *Garbology: Our Dirty Love Affair with Trash*. Avery publishing Group.
<https://booksbooks.com/garbology-our-dirty-love-affair-with-trash-pdf.html>
- Ireland, L. (2013). *Environmental Education Framework*. Alberta: Alberta Council for Environmental Education (ACEE).
<https://www.abcee.org/sites/default/files/cms/wpcontent/uploads/2013/04 /Alberta-Environmental-Education-Framework-Sept-9.pdf>
- Jeffries, M. J. (1997). *Biodiversity and Conservation (2nd)*. Routledge.
- Kozak, S., & Elliot, S. (2011). *Connecting the Dots: Key Learning Strategies for Environmental Education, Citizenship and Sustainability*. Learning for Sustainable Future (LSF). http://lsf-1st.ca/media/LSF_Connecting_the_Dots_February2014.pdf
- Miller, G. T., & Spoolman, S. (2012). *Environmental Science*. Cengage Learning.
<https://www.eoc.go.ug/sites/equalopportunities/files/complaints-uploads/relevantattachments/pdf-environmental-science-g-tyler-miller-scott-spoolman-pdf-download-free-book-d1c5cb7.pdf>
- NAEE. (2015). *The Environmental Curriculum*. National Association for Environmental Education.
https://naee.org.uk/wpcontent/uploads/2015/06/NAEE_The_Environmental_Curriculum.pdf
- Odum, E., & Barrett, G. (2005). *Fundamentals of Ecology (5th)*. Thomson Brooks/Cole Publishing Co.
- Primack, R. (1998). *Essential of Conservation Biology (5th)*. Sinauer Associates, Inc. Pub.
<https://www.sinauer.com/media/wysiwyg/tocs/EssentialsConservationBiology5.pdf>
- Smith, T. M., & Smith, R. (2012). *Elements of Ecology (9th)*. Pearson.

- Stapp, W. B., & Cox, D. A. (1974). *Environmental Education Activities Manual*. Author. <https://files.eric.ed.gov/fulltext/ED119947.pdf>
- Sterling, S. R. (2001). *Sustainable Education: Re-visioning Learning and Change*. Green Books for the Schumacher Society. <https://eric.ed.gov/?id=ED464791>
- Stevenson, R. B., Brody, M., Dillon, J., & Wals, A. J. (2013). *International Handbook of Research on Environmental Education*. Routledge.
- Tal, R. T. (2005). Implementing multiple assessment modes in an interdisciplinary environmental education course. *Environmental Education Research*, 575–601. <https://doi/abs/10.1080/13504620500169767>
- Turk, A., Wittes, J., Turk, J., & Wittes, R. (1978). *Environmental Science*. W.B. Saunders Company.
- UNDP. (2006). *National Biodiversity Strategy and Action Plan for Bangladesh*. Ministry of Environment and Forest. <http://www.poribesh.com/wpcontent/uploads/2015/08/National-Biodiversity-Strategy-and-Action-Plan-2005.pdf>
- UNESCO. (1980). *Environmental education in the light of the Tbilisi Conference*. UNESCO.
- UNESCO. (2002). *Education for sustainability—From Rio to Johannesburg: Lessons learnt from a decade of commitment*. United Nations. <https://earthcharter.org/library/from-rio-tojohannesburg-lessons-learnt-from-a-decade-of-commitment/>
- UNESCO. (2019). *UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable*. Author. https://en.unesco.org/sites/default/files/roadmap_1.pdf

1. Course Number: PC 124

Course Title: Nonformal and Lifelong Education

2. Credit Hours: 4

3. Course Description

The course is designed to provide a broad based knowledge, understanding and insights into the Nonformal and Lifelong Education (NFLE) in different perspectives. It strongly interfaces formal education with that of nonformal and lifelong education. It is creating voluminous learning needs and opportunities for the developing societies with special focus to Bangladesh. This course is committed to internalize NFLE in Bangladesh from the connotative meaning. It would verily be understood in all components and contrasts for achieving sustainable development in all strata to improving the quality of life.

4. Course Objectives

The objectives are to help learners to

- a. help students understand concept, salient features, goals and alike aspects of NFLE in different ways and means.
- b. make the students realize the important role of NFE and CE in developing societies with particular reference to Bangladesh.
- c. orient the students about the facilities and programs of NFLE available in Bangladesh.
- d. increase the understanding of the students in regard to NFLE program/ project implementation; and role of NFLE attaining lifelong education for quality of life.
- e. acquaint the students with the future modality of education focusing on NFLE.

5. Course Contents

Contact Hours

Unit 1: Aspects of Nonformal Education

5

Learning Outcome

At the end of this unit learners will be able to

- a. explain the connotative meaning and significance of NFE in different contexts exposing general views and particular background of a developing country of Bangladesh

Content

- Origin, concept, definition, salient features and scopes of NFE
- Goals, objectives, significance, target people of NFE
- NFE in relation to Second Chance Education (SCE)
- Education in Emergency (EE): Local & global perspective
- NFE in relation to EFA, UPE, CPE, OoSC & CE
- Achieving skills and the role of NFE

Unit 2: Continuing Education

5

Learning Outcome

At the end of this unit learners will be able to

- a. rationalize role of CE in different contexts

Content

- Concept, definition, aims, purpose and importance of CE
- CE in relation to education, NFE and further learning

- Clientele & types of CE
- CE in relation to CPD and HRD
- CE in relation to Skills
- CE in relation to achieving SDGs, LE & formation of KE, KBS

Unit 3: NFE and CE in the Developing Countries

5

Learning Outcomes

At the end of this unit learners will be able to

- explain the connotation of developing country
- describe learning needs of developing countries in relation to Bangladesh
- establish relationship of NFE and CE with that of formal education in Bangladesh

Content

- Concept, meaning, implication and characteristics of developing societies
- Learning needs & demands and opportunities in developing societies with a special emphasis on Bangladesh
- Linkage and equivalency of NFE and CE with formal education in Bangladesh
- Role of NFE and CE in national development-social, economic, cultural, ethical and moral

Unit 4: NFLE Programs in Bangladesh

5

Learning Outcomes

At the end of this unit learners will be able to

- describe the important projects/ programs of NFLE taken in Bangladesh and their contribution

Content

- Chronological development of NFLE
- Opportunities and facilities of NFLE in Bangladesh
- Major government and non-government NFLE programs
- GO-NGO relationship, collaboration and PPP in NFLE
- Changing role of NFLE
- Changing modality of SCE focusing on media & technology

Unit 5: NFLE Program Implementation

5

Learning Outcomes

At the end of this unit learners will be able to

- assess the implementation mechanism of NFE specially in the field level

Content

- Role of MoPME, BNFE, DPE and other relevant organizations
- Major actors of NFLE in Bangladesh: GO, INGO, NGO etc.
- Program implementation processes-planning, management and leadership
- Practicing Pedagogy, Andragogy and Heutagogy in NFLE

Unit 6: Future Education, Quality of Life and LLL

5

Learning Outcomes

At the end of this unit learners will be able to

- judge NFLE's ultimate goal of achieving life-long education ensuring quality of life
- define the future modality of education focusing on LLL

Content

- Concept, meaning, development and components of quality of life
- Ways and means of empowering people mainly the disadvantaged sections of population for quality of life
- Role of LLL and SCE in improving quality of life
- Future education with ICT
- NFE in EE & Refugee setting

6. Instructional Strategies

- a. Presentation
- b. Lecture
- c. Discussion
- d. Assignment
- e. Case studies

7. Assessment

- a. Two In-course Examinations 15 × 2 = 30
- b. Course Final Examination (MCQ + Essay) 20 + 40 = 60
- c. Assignment/Presentation 10

8. Recommended Books, Journals and Reports

BNFE (2006). *Nonformal education policy*.

Education for the 21st Century in the Asia-Pacific Region, Report of the Malbourne. UNESCO Conference 1998.

James, J., (1990). *Literacy: Master or servant? A case study from rural Bangladesh*. Dhaka: University Press Limited.

Jerold. W. Apps (1979). *Problems in continuing education*. New York: McGraw-Hills, Inc.

M. A. Salam, (2019). *Information and communication technology (ICT) in education today and tomorrow*. SAM Press & Publications, Dhaka.

Md. Ferdouse K. (1988). *Mass education in Bangladesh and the role of the youth (first edition)*. World Peace Academy of Bangladesh.

Monika N., (2016). *NFE BOOK-AEGEE-The impact of nonformal education on young people and society*. *Nonformal education law-2014*. Bangladesh.

Peter J., (1995). *Adult and continuing education: Theory and practice*.

Phillip H. C., (1980). *Meeting the basic needs of the rural poor-the integrated community based approach*. Pergaon Press, New York.

Siddiqui Rahman (1987). *Non-formal education*.

T. M. Sakya (1987). *Concept of continuing education in different contexts*. UNESCO Publication.

আবু হামিদ লতিফ (২০১৩), *উপানুষ্ঠানিক শিক্ষা ধারা-বাংলাদেশ ও আন্তর্জাতিক পরিপ্রেক্ষিত*, ঢাকা।

আবদুল্লাহ-আল-মুতি সরফুদ্দিন (১৯৯৭), *আমাদের শিক্ষা কোন পথে*, ঢাকা: ইউনিভার্সিটি প্রেস লি:।

আবু হামিদ লতিফ (২০০১), *বাংলাদেশের উপানুষ্ঠানিক শিক্ষা*, ঢাকা: প্যাপিরাস।

আবু হামিদ লতিফ (২০০৩, ক), *শিক্ষা উন্নয়ন, পরিকল্পনা*, ঢাকা: প্যাপিরাস।

আবু হামিদ লতিফ (২০০৩, খ), *শিক্ষা, শিখন, শিক্ষণ, প্রশিক্ষণ*, ঢাকা: প্যাপিরাস।

মোঃ আবদুস সালাম (২০১৯, ক), *গৃহপালিত শিক্ষা (আনুষ্ঠানিক শিক্ষা)*, ঢাকা: স্যাম প্রেস এন্ড পাবলিকেশন্স।

মোঃ আবদুস সালাম (২০১৯, খ), *শিক্ষার নমনীয় খিড়কী (উপানুষ্ঠানিক ও জীবনব্যাপী শিক্ষা)*, ঢাকা: স্যাম প্রেস এন্ড পাবলিকেশন্স।

মোঃ আবদুস সালাম ও হোসনে আরা বেগম (২০০২), *আনুষ্ঠানিক ও উপানুষ্ঠানিক শিক্ষা বাংলাদেশ*, ঢাকা: মুক্তি প্রিন্টার্স।

মোঃ দেলোয়ার হোসেন শেখ (২০০৩), *শিক্ষা ও উন্নয়ন: উন্নয়নশীল দেশের প্রতিশ্রুতি*, ঢাকা: হাককানী পাবলিশার্স।

1. Course Number: PC 125

Course Code and Title: Introduction to Educational Research

2. Credit Hours: 4

3. Course Description

This is an introductory course on educational research. The course is designed to introduce the students to the fundamentals of research and commonly used research approaches in the field of education. This will help students to acquire foundational knowledge, skills and attributes that are necessary to develop the quality of research professional. Course materials and activities will engage students with research literature that lays the foundation for planning and conducting educational research. Upon completion of the course students will be able to appreciate the importance of doing research in education and plan their own research project.

4. Course Objectives

The objectives are to help learners to

- a. develop clear understanding of the concepts of research and other research related fundamental terminologies.
- b. understand the significance of research and develop positive attitude towards solving educational problems applying appropriate research approach.
- c. develop knowledge about the requirements of various types of educational research.
- d. identify appropriate research problems in the field of education.
- e. be acquainted with basic methods and tools of educational research.
- f. select sample and design research proposal.
- g. acquire the skills of using reference materials.

5. Course Contents

Contact Hours

Unit 1: Meaning, Importance and Characteristics of Research

4

Learning Outcomes

At the end of this unit learners will be able to

- a. grasp the concept of educational research
- b. describe the development process of research as a process of enquiry

Content

- Meaning and concept of research and educational research
- Characteristics of educational Research
- Purpose and importance of conducting research in the field of education
- Search for knowledge: Experience, inductive vs. deductive reasoning, scientific method
- Steps involved in the process of research
- Role of literature review for different steps of research

Unit 2: Educational Research Design

10

Learning Outcomes

At the end of this unit the learners will be able to

- a. explain the concept of research design
- b. identify various research designs for different educational problem/ situation

Content

- Concept and Classification of the Research Design
(Discuss, key characteristics, types, problems/ situations in line with the Design, Steps involved in conducting each of the following design)
 - Quantitative Research Design: Survey, Experimental, Causal-comparative and Co-relational Design
 - Qualitative Research Design: Case study, Historical Research, Ethnography, Grounded Theory, Phenomenology, Narrative
 - Combined Research Design: Action Research Design and Mixed Methods Design

Unit 3: Identification of Research Problem

3

Learning Outcomes

At the end of this unit the learners will be able to

- a. explain the concept of research problem
- b. describe different research designs linked to research problem
- c. identify research problems in education
- d. justify a research problem using logic and evidence

Content

- Research problem: concept, importance, characteristics, types and sources; variable and central phenomenon
- Process of selecting/defining research problem: From general to specific - broad idea - narrow down to more specific; Identifying topic, problem, purpose and Research questions/ hypothesis/ objectives
- Justification of research problem
- Statement of the research problem: Flow of ideas

Unit 4: Research Purpose, Research Questions and Hypothesis

3

Learning Outcomes

At the end of this unit the learners will be able to

- a. write research purpose for a identified research problem
- b. write research questions maintaining principles
- c. formulate hypothesis for a research problem

Content

- Concept and types of variables: Dependent, Independent and other variables
- Specification of research problem: Guidelines for writing purpose statement, research objectives, research questions, hypothesis including sample scripts
- Types of research questions for quantitative (descriptive, comparison and relationship questions) and qualitative (central and sub-questions)

Unit 5: Sample and Sampling

6

Learning Outcomes

At the end of this unit the learners will be able to

- a. identify the role of sample in research
- b. estimate representative sample
- c. select appropriate sampling techniques for their research

Content

- Population, Target Population/Sampling Frame, Sample (Participants or subjects of research), representativeness of sample
- Concept and purpose of sampling; Major types of sampling: Probability and non-probability sampling
- Techniques of probability sampling: Simple random sampling (SRS), Systematic, Stratified, Cluster and Multi-stage sampling
- Types of non-probability sampling: Snowball, Quota, Convenience, Purposive, Maximum Variation, Extreme Case, Typical, Critical, Homogeneous, Opportunistic Sampling
- Estimation of sample size and different considerations

Unit 6: Tools for Data Collection

5

Learning Outcomes

At the end of this unit the learners will be able to

- a. select appropriate tools for collecting quantitative data
- b. select appropriate tools for collecting qualitative data
- c. describe ethical issues in data collection

Content

- Criteria for selecting appropriate tool(s) for a research project
- Methods of collecting data: Questionnaire, Observation, Interview
- Questionnaire: Nature, types, item types, wording, advantages and disadvantages /limitations
- Interview: Nature, types, item types, wording, advantages and disadvantages /limitations
- FGD: Nature, item types, wording, advantages and disadvantages/limitations
- Observation: Nature, types, item types, wording, advantages and disadvantages /limitations
- Ethical issues in collecting data

Unit 7: Fundamentals of Data Analysis

3

Learning Outcomes

At the end of this unit the learners will be able to

- a. process quantitative data
- b. describe the techniques of quantitative data
- c. describe the techniques of qualitative data

Content

- Meaning and importance of data processing and data analysis
- Quantitative Data Analysis: Editing, coding, classifying, tabulating
- Qualitative Data Analysis: Thematic analysis
- Interpretation of data

Unit 8: Referencing and Bibliography

3

Learning Outcomes

At the end of this unit the learners will be able to

- a. describe the concept of plagiarism and its importance
- b. take notes using appropriate methods
- c. write in text citation, reference, bibliography and endnote

Content

- Meaning and importance of referencing
- Ways of using other's work: summarizing, paraphrasing, quoting
- Plagiarism: crime related to not referring/recognizing other's work
- Style manual for academic writing
- Sources for referencing: Libraries, reports, newspapers, personal communications, internet etc.
- Taking notes: suggested methods
- Use of End Note

Unit 9: Writing a Research Proposal

3

Learning Outcomes

At the end of this unit the learners will be able to

- a. describe the importance of research proposal
- b. write a research proposal

Content

- Meaning and importance of research proposal
- Components/elements of a research proposal:
 1. A working title
 2. Introduction and or background or study context:
 - i. Statement of research problem
 - ii. Aim/Purpose and research question/hypothesis/specific objectives
 - iii. Rationale and significance of the study
 3. Literature review (preliminary)
 4. Research methodology (design; source of data, sample and sample size; sampling, tools, analysis)
 5. Ethical consideration
 6. Timetable
 7. Budget and
 8. References
 9. Annexure (if any)
- Matching the proposal components to-
 - i. Quantitative
 - ii. Qualitative, and
 - iii. Mixed method research proposal

6. Instructional Strategies

- a. Lecture and classroom interaction
- b. Group study and discussion
- c. Individual/pair/group presentation
- d. Students' participation in class

7. Assignment

- a. Developing research proposal

8. Assessment Strategies

- a. Two In-course Examinations $15 \times 2 = 30$
- b. Course Final Examination (MCQ + Essay) $20 + 40 = 60$
- c. Assignment/Presentation 10

9. Recommended Books, Journals and Reports

A. Books

- Best, J. W., & Kahn, J. V. (2006). *Research in education*. Prentice Hall.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating qualitative and quantitative research*. Pearson.
- Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education*. McGraw-Hill.
- Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications*. Pearson.
- Johnson, B., & Christensen, L. (2014). *Educational research: quantitative, qualitative, and mixed approaches*. SAGE Publications, Inc.
- Kothary, C. R. (2005). *Research methodology*. New Age International Publishers.
- Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2006). *Methods in educational research: From theory to practice*. Jossey-Bass.
- Rossman, G. B., & Rallis, S. (2016). *An introduction to qualitative research: Learning in the field*. SAGE.

জিনাত জামান (১৯৮৭), শিক্ষা গবেষণা পরিচিতি ও কৌশল, আমিরুজ্জামান খান।

B. Planning and Writing

- Booth, W. C., Colomb, G. G., & Williams, J.M. (2008). *The craft of research*. University of Chicago Press.
- Lunenburg, F. C., & Irby, B. J. (2008). *Writing a successful thesis or dissertation*. Corwin Press.

C. Referencing Style Guides

- American Psychological Association. (2020). *Publication manual of the American Psychological Association 2020: The official guide to APA style* (7th ed.). American Psychological Association.
- Evans, D. R., & Rossman, G. B. (2009). *Using the work and word of other authors: A short guide to APA style for graduate students in education at US universities*. University of Massachusetts.
- IER. *The official style manual of institute of education and research*. University of Dhaka (Including Nos. 4 and 10 in Section IX) (IER, Library).

1. Course Number: PC 126

Course Title: Statistics in Education

2. Credit Hours: 4

3. Course Description

Statistical literacy is gaining increased importance in everyday life of the students. This course provides an opportunity to the education students to empower them with statistical literacy and use the competence in quantitative methods of enquiry in social/behavioral sciences. Both statistical literacy and methods are focus of the course. Students will be exposed to the fundamental concepts and methods or techniques of descriptive and inferential statistics in this course.

4. Course Objectives

The objectives are to help learners to

- appreciate the importance and the role of statistics in educational enquiry.
- comprehend the usefulness of descriptive and inferential statistics in quantitative methods of enquiry.
- organize and summarize quantitative data using appropriate techniques.
- display the distribution of quantitative data using graphical techniques.
- analyze and describe quantitative data and results using appropriate techniques from descriptive statistics.
- formulate statistical and alternative hypothesis.
- explain the significance and process of inferential statistics in hypothesis testing.

5. Course Contents

Contact Hours

Unit 1: Introduction to Statistics

3

Learning Outcomes

At the end of this unit the learners will be able to

- describe the basic concepts of statistics (such as, population, sample, parameter, statistic etc.)
- explain the concept of variables and data and their classifications
- establish the importance of statistical analysis

Content

- The meaning and role of statistics in education
- Variables, attributes/constructs, types of variables; individual variables and relationship between variables
- Data: definition, classification data structure
- Scales of measurement: nominal, ordinal, interval and ratio scales
- Population and sample; parameter and statistic
- Major classification of statistics: Descriptive and inferential statistics
- Statistical notations and basic mathematics used in statistics

Unit 2: Organizing and Displaying Data

7

Learning Outcomes

At the end of this unit learners will be able to

- describe the importance and ways of data organization
- define and construct frequency distribution
- presenting results through tables and graphs
- explain data presented through tables and graphs

Content

- Raw data and organized data
- Coding data from categorical variables
- Tabulation of data, essential components of tables, construction of tables
- Simple frequency distribution: Purpose, types and properties of frequency distribution; Construction of a frequency distribution table
- Distribution of data: Univariate, Bivariate and Multivariate
- Displaying distributions with graphs: importance, characteristics of graphs
- Simple frequency distribution graphs: graphing, classification and shapes
- The five number summary or boxplots

Lab Exercise 1: Introducing Microsoft Excel to use in statistical analysis

Lab Exercise 2: Introducing SPSS to use in statistical analysis

Lab Exercise 3: Data entry in Excel and SPSS

Lab Exercise 4: Frequency distribution, tabular and graphical representation using Excel and SPSS

Unit 3: Summarizing and Describing Data

9

Learning Outcome

At the end of this unit learners will be able to

- a. describe the ways of summarizing data
- b. explain the concept and measures of central tendency
- c. explain the meaning of dispersion
- d. compute the different measures of dispersion

Content

- Central tendency/location of distribution
 - Concept and meaning and purpose
 - Measuring central tendency: Mean, Median and Mode
 - Selecting an appropriate measure of central tendency
 - Comparison of mean, median and mode
 - Deviations around the mean
- Variability/dispersion of distribution
 - Measuring variability: Range, mean deviation, quartile deviation and inter-quartile range
 - Variance and standard deviation of population and sample

Lab Exercise 5: Computing central tendency and dispersion using Excel and SPSS

Unit 4: Studying Relationships

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the importance of studying relationship
- b. define correlation between two variables
- c. explain different types of correlation
- d. compute the coefficient of correlation
- e. interpret the relationship between two variables
- f. define regression and use of regression analysis
- g. explain regression model

Content

- Correlation
 - Meaning, use and types of correlation (Simple and multiple correlation; Positive, negative and zero correlation)
 - Coefficient of correlation: direction, degree of relationship; minimum and maximum values; linear and non-linear relationship
 - Graphing correlation between two variables: Scatterplots- Positive, negative and zero correlation
 - Computing correlation: Pearson product moment and rank correlation
 - Interpretation of coefficient of correlation; Correlation and causation
- Regression
 - Meaning and use of regression

Lab Exercise 6: Computing relationship using SPSS

Unit 5: Probability and Inferential Statistics

5

Learning Outcomes

At the end of this unit learners will be able to

- describe the concept and use of probability
- explain the use of normal distribution
- describe the purpose and process of inference

Content

- Probability and the probability distributions
 - Basic concepts of probability: Definition and concepts
 - Random variables; Discrete and continuous random variables
 - Basic rules of probability; Probability and underlying distribution
 - Application of probability rules
 - Probability distributions: Discrete and continuous probability distributions
- The normal distribution
 - Basics of the normal distribution; The normal distribution graph and its properties
 - The family of normal distribution; The standard normal distribution
 - Use of normal distribution or normal curve
- Statistical Inference
 - Meaning, purpose and use of statistical inference
 - Statistical estimation - point and interval estimation
 - Parametric and non-parametric statistics

Lab Exercise 7: Hypothesis testing (Inferential statistics) using SPSS

Unit 6: Data collection, analysis and interpretation

5

Learning Outcomes

At the end of this unit learners will be able to

- collect relevant data from education field
- analyze collected data using appropriate statistical techniques
- interpret analyzed data

Content

- Clarifying the purpose of data collection
- Collection of data from a sample
- Selecting appropriate techniques for analysis
- Performing analysis and interpretation

6. Instructional Strategies

- Lecture and classroom interaction
- Group study and discussion
- Individual/pair/group presentation
- Library work and students' participation in class

7. Assignment

- Defining problem, collecting data (e.g., achievement scores) and analyze the scores using appropriate (e.g., descriptive or inferential etc.) statistical techniques and reporting the results

8. Assessment Strategies

- | | |
|---|-----------|
| a. One In-course Examination | 15×01 =15 |
| b. Course Final Examination (MCQ + Essay) | 20+40 =60 |
| c. Practical | 25 |

9. Recommended Books

- Blommers, P., & Forsyth, R. A. (1977). *Elementary statistical methods in psychology and education* (2nd Ed.). Houghton Mifflin Company.
- Garrett, H. E. (1973). *Statistics in psychology and education*. Longmans, Green & Co.
- Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the behavioral sciences* (10th Ed.). Wadsworth, Cengage Learning.
- Healey, J. F. (2010). *The essentials of statistics: A tool for social research* (2nd Ed.). Wadsworth, Cengage Learning.
- Heiman, G. W. (2011). *The essentials of statistics: A tool for social research* (6th Ed.). Wadsworth, Cengage Learning.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th Ed.). Longman.
- Horvath, T. (1985). *Basic statistics for behavioral sciences*. Little, Brown and Company.
- Howell, D. C. (2007). *Statistical methods for psychology*. Thomson, Wadsworth.
- Mostafa, M. G. (1989). *Methods of statistics* (4th Ed.). Karim Press & Publications.
- Ross, S. (2010). *Introductory statistics* (3rd Ed.). Elsevier.
- Walker, H. M. (1964). *Mathematics essential for elementary statistics: A self-teaching manual*. Holt, Rinehart and Winston.
- Weiss, N. A. (2012). *Introductory statistics* (9th Ed.). Pearson.
- Woodbury, G. (2002). *An introduction to statistics*. Thompson Learning.
- শাহজাহান তপন ও আব্দুর রশিদ (২০০৯), *শিক্ষায় পরিমাপ ও মূল্যায়ন*, ঢাকা: মেট্রো পাবলিকেশন্স।

Website:

Free course: <https://mooc.utm.my/courses/applicationstatisticsi/?cl=1>, retrieved on August 7, 2021.

1. Course Number: PC 127

Course Title: Inclusion in Education

2. Credit Hours: 4

3. Course Description

This is a fundamental course on embracing diversity and inclusion of all students in education with a special focus on children with disabilities (CWDs). This course intends to provide a clear understanding and essential knowledge, attitude and skill to ensuring equity in education especially for Students with Special Educational Needs (SEN) in Bangladesh. It will develop students' understanding in a range of theories, approaches and issues regarding diversity, disability, equity, inclusion and social justice and offer students to be acquainted with essential skills for practicing inclusion in the field of education.

4. Course Objectives

The objectives are to help learners to

- a. understand and respond to the concept, philosophies, theory and policies related to inclusion in education.
- b. recognize and respond to the varied educational needs of CWDs in the regular classroom.
- c. critically evaluate the effectiveness of interventions in Diversity and Inclusion through education.
- d. recognize Special Educational Needs (SEN) of diverse learners in schools.
- e. combine, create and apply a range of effective pedagogical as well as educational strategies for educating diverse learners in the regular schools.

5. Course Contents

Contact Hours

Unit 1: Introduction to Human Diversity and its Strength

4

Learning Outcomes

At the end of this unit learners will be able to

- a. interpret the concept of diverse ability, disability, diversity, equality, equity and social justice
- b. outline various aspects related to disability, diversity and inclusion

Content

- Concept and Strength of Disability and Human Diversity, challenge of disability
- The 3 (Three) Rs of Diversity: Recognize, Respect, and Respond; and its implication for educating CWDs
- Perspectives of Diversity and Inclusion: Diverse ability, Disability, , Gender, Ethnicity, Race, Religious faith, socio-economic status

Unit 2: Inclusion from the perspective of Social Justice

6

Learning Outcomes

At the end of this unit learners will be able to

- a. understand the relationship between Inclusion and Social Justice
- b. illustrate legal and Policy Framework for inclusive education ensuring equitable quality education for all including CWDs

Content

- Conceptualizing Inclusion
- Social Justice Framework for ensuring Equity, Equality and Inclusion
- Legislative and Policy framework for inclusive education
 - National Education Policy 2010
 - Salamanca Declaration 1994
 - UNCRPD 2006
 - Bangladesh Peoples with Disabilities Rights and Protection Act 2013
 - Neuro-Developmental Disability Trust Act 2013
 - Gender Policy, 2013
 - Nonformal Education Act, 2014
 - Integrated Special Education Regulation 2018

Unit 3: Disability Inclusion

8

Learning Outcomes

At the end of this unit learners will be able to

- a. identify students with disabilities in classroom
- b. recognize and respond to the educational needs for Children with disabilities
- c. differentiate among various educational models existed for educating children with disabilities

Content

- Basic concept and characteristics of children with SEN
- Various educational approaches for educating children with SEN
 - Special Education
 - Integrated Education
 - Inclusive Education: Full Inclusion, Partial Inclusion, Reverse Inclusion, Social Inclusion, Vocational Inclusion
 - Home based Education,
 - Continuum of Placement

Unit 4: Inclusive Pedagogy

12

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the factors and challenges of inclusive classroom
- b. recognize and construct teaching-learning strategies for different types of children with SEN
- c. outline strategies for Creating Inclusive Learning Friendly Environment (ILFE) in classroom
- d. apply various strategies and techniques related to inclusive pedagogy in the classroom
- e. demonstrate basic skills and attitudes for creating ILFE

Content

- Factors and challenges of inclusive classroom for Children with special needs
- Creating supportive learning environments
- Orientation with various assistive devices required for educating Children with SEN in the mainstream
- Effective Classroom Management Practices for Inclusive Education
- Addressing teacher's burnout for managing inclusive classroom
- Different classroom communication strategies required for educating CWDs

Unit Five: Transforming Schools for Inclusive Education

10

Learning Outcomes

At the end of this unit learners will be able to

- identify strategies for effective transformation of the schools
- outline effective strategies for implementing inclusive education in the schools
- apply and adapt the four indicators of Inclusion (Access, Acceptance, Active participation and Achievement)
- recognize various Government and non-Government initiatives regarding IE in Bangladesh
- describe the basics of Inclusion in emergency

Content

- Creating Inclusive Learning Friendly Environment (ILFE): Settings and Strategies
- Accessibility for Diverse Learners: Getting school buildings right
- Strategies for using technology to support inclusion
- Collaborative strategies for effective inclusion
- Four indicators of Inclusion (Access, Acceptance, Active participation and Achievement)
- Involving parents & community for transforming school
- Government (i.e. PEDP, TQI, SESIP, ROSC) and non-Government initiatives regarding IE in Bangladesh
- Inclusion in emergency

6. Instructional Strategies

- Lecture
- Discussions
- Group work
- Debate
- Blended approach (online-offline)
- Inclusive pedagogy
- Evidence based practices
- Document review
- Field visit (Inclusive/Special Schools or/ and Organization working for CWDs)

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation/Field Report/Demonstration | 10 |

8. Recommended Books, Journals and Reports

- Adams, M., Blumenfield, W., Castaneda, C., Hackman, H., Peters, M., & Zuniga, X. (Eds.). (2013). *Readings for Diversity and Social Justice*. New York: Routledge.
- Adams, M., Lee, A. B., & Griffin, P. (2007). *Teaching for diversity and social justice*. New York: Routledge.
- Alston, P. & Knuckey, S. (2016). *The Transformation of Human Rights Fact-Finding*. Oxford, UK: Oxford University.
- Ball, A. (2006). *Multicultural Strategies for Education and Social Change: Carriers of the Torch in the United States and South Africa*. New York: Teachers College.
- Banks, J. (2005). *Cultural Diversity and Education: Foundations, Curriculum, and Teaching*. Michigan: Pearson.

- Banks, J. A. & Banks, M. (2015). *Multicultural Education: Issues and Perspectives* (9th ed.). New York: Wiley.
- Cochrane, S., Jones, M., Chhabra, M., & Spragg, D. T. (2017). *Culturally Responsive Teaching and Reflection in Higher Education*. New York: Routledge.
- Cole, M. (2000). *Education, Equality, and Human Rights*. Citi Bank, UK: Falmer Press.
- Cose, E. (1994). *The Rage of a Privileged Class: Why Are Middle-Class Blacks Angry? Why Should America Care?* New York: Harper Perennial.
- Erevelles, N. (2011). *Disability and difference in global contexts: Enabling a transformative body politic*. Berlin, Germany: Springer.
- Haider, M. S., & Ferdous, J., (2019). A review of inclusive education contents included in teacher education courses: Bangladeshi context, *International Journal of Science and Research (IJSR)*, Volume 8 Issue 9, September 2019, 175- 181.
- Hammond, Z. (2015). *Culturally Responsive Teaching and the Brain: Promoting Authentic Engagement and Rigor Among Culturally and Linguistically Diverse Students*. Thousands Oak, CA: Corwin.
- Powell, R.G, & Powell, D. (2015). *Classroom Communication and Diversity: Enhancing Instructional Practice*. Mahawah, NJ: Lawrence Erlbaum.
- Smith, P. (2013). *Disability and Diversity: An Introduction* (1st Edn.). Dubuqu, LO; Kendall/Hunt.
- Sen, A. (2009). *The Idea of Justice*. :Harvard Allen Lane, Harvard Universiti.
- Williams, D. (2013). *Strategic Diversity Leadership: Activating Change and Transformation in Higher Education*. New York: Stylus Publishing.
- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মোঃ শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা: চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মোঃ শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমী।
- দিবা হোসেন ও রায়হান আরা জামান (২০২০), *একীভূত শিক্ষায় তথ্য ও যোগাযোগ প্রযুক্তি*, ঢাকা: Grants for Advanced Research in Education (GARE), শিক্ষা মন্ত্রণালয়, বাংলাদেশ সরকার।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।
- মুহাম্মদ মাহবুবুর রহমান (সম্পাদিত) (২০১৯), *একীভূত শিক্ষা*, ঢাকা: শিক্ষা মন্ত্রণালয়, টিকিউআই-২।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন
- Web sources: Various Policies and Legislation.
- World Confernce on Special Needs Education: Access and Quality [Salamanca Declaration]1994.
- United Nation Convention on Rights for peoples with disabilities (UNCRPD) 2006.
- UNESCO-Dhaka Booklet on Inclusive Education (in Bangla).
- UNESCO (2001), Open File on Inclusive Education: Support Materials for managers and administrators. Paris: UNESCO..
- UNESCO (1993). Teachers Education Resource Pack: Special Needs in the classroom. Paris: UNESCO.
- www.bdlaw.gov.bd.
- www.mosw.gov.bd.

1. Course Number: PCP 151 & PCP 152

Course Title: Practicum: Micro-Teaching and Simulation

2. Course Credit: 4

3. Course Descriptions

The Course is designed to provide scope to the students to practice the pedagogies in arranged situations. This is a preparatory course for Internship. In this course students in small group will be involved mainly in two kinds of activities: Micro-Teaching and Simulation. Under Micro- teaching each student of a group will practice skill/component of a lesson (i.e. techniques of questioning, use of teaching aids) separately in his/her group for a short period (5 to 7 minutes) under the close supervision of the teacher. Under Simulation the student will present the whole lesson following an approved lesson plan before the group. In both cases observations and feedback from the supervisor and the peers will facilitate the presenter to improve his/her skills. There will be two supervisors for each group each dealing with a specific subject.

4. Course Objectives

The objectives are to help learners to

- a. familiarize students with the practical of the learning environment.
- b. enable students to plan, present and evaluate major skills/components of a lesson effectively.
- c. assist the students to develop lesson plans and simulate the lesson before the peers.
- d. help the students to develop and use the appropriate teaching aids effectively.

5. Course Contents

Contact Hours

Unit 1: Micro Teaching

Learning Outcomes

At the end of this unit learners will be able to

- a. each student will participate in at least 10 Micro-Teaching sessions in each of the two subjects and demonstrate at least 5 (five) skills/components in each subject with micro lesson plans. She/he will also participate in discussion on others' demonstrated in Micro-Teaching sessions
 - i. classroom Management
 - a. control over the whole class
 - b. drawing and retaining pupils' attention
 - c. teacher-student rapport
 - d. Motivating the students
 - ii. Classroom Questioning
 - a. use of appropriate technique
 - b. framing of questions
 - c. fact-based/recall questions
 - d. reflective/though provoking questions
 - iii. Use of teaching Materials
 - a. use of appropriate materials
 - b. use of appropriate techniques in using materials
 - iv. Use of Board (Chalk Board/Marker Board)
 - a. setting of the board
 - b. techniques of writing in the board
 - c. visibility of writings
 - d. legibility of writings

- v. Use of Audio-Visual Equipment
 - a. setting/placement
 - b. operating technique
 - c. techniques of se
- vi. Communication with Pupils
 - a. simply and effectively
 - b. clarity of expression
 - c. understandings pupils linguistic needs
 - d. two-way communication
- vii. Some Specific Teaching Skills
 - a. simulation
 - b. elicitation of pupils interest and enthusiasm
 - c. relating to real life experience
 - d. ensuring pupils participation
 - e. adaptability to pupils needs

Unit 2: Simulation

Learning Outcome

At the end of this unit learners will be able to

- a. Each student will participate in 10 class sessions in each of the two subjects for simulation teaching. He/she will present 3 (three) full lessons in each of the two subject using appropriate methods based on specific content and ability of the pupils and providing feedback to others' lessons. For each subject each student will develop at least 5 (five) lesson plans and get those approved by the respective subject supervisors

6. Evaluation

<i>Evaluation by Subject Supervisor of</i>		Credit Hours
(a) Subject: One (PCP 151)		2
(b) Subject: Two (PCP 152)		2
Break up of each subject		
(i)	Demonstration of skills in Micro-Teaching Sessions:	0.5 Cr.Hr
(ii)	Effective participation in discussion on others demonstration in Micro- Teaching Session:	0.5 Cr.Hr
(iii)	Preparation of full Lesson Plan	0.5 Cr.Hr
(iv)	Presentation of <u>full lessons in Simulation Sessions</u>	0.5 Cr.Hr
Total Credit Hours for Each Subject:		2 Credit Hour

1. Course Number: PCP 161 to PCP 165

Course Title: Practicum: Internship

2. Course Credit: 20

3. Course Description

Internship teaching is the culminating experience of the first degree program in Education. It provides the opportunity to apply theoretical knowledge on pedagogies in the actual classroom settings and gain practical experience. The internees are exposed to an environment where they encounter learners for the first time and face them with multitude of ideas, approaches, to demonstrate the art of teaching in actual situation and participate in all activities at the school level. The duration of internship is one semester when the internees will perform their assigned responsibilities in schools under the direct management and control of the heads of the respective schools and under the supervision of two subjects-supervisors and a school coordinator to be assigned by IER. The internees experience in school will include, among others teaching two subjects, observation of others lessons, organizing co-curricular activities, developing and administering tests ,scoring answer scripts, statistical treatment and interpretation of test results and performing other responsibilities as assigned by the heads of the schools.

4. Course Objectives

The major objectives of the Internship program are to help the internees to

- a. acquire first hand experience through working in an educational institution and taking part in all major activities of the institution.
- b. develop lesson- plans taking into consideration the nature of the subject-content and the characteristics of the pupils.
- c. create effective teaching-learning environment in the classroom through using appropriate management technique.
- d. teach effectively in the real classroom situations following teaching-learning strategies appropriate for the learners and the subject content.
- e. develop and use achievement tools to assess pupils performance and provide necessary assistance and guidance to the pupils.
- f. organize co-curricular activities for harmonious development of the pupils.
- g. develop attitude and skills to adopt innovative techniques and measures in solving pedagogical problems, and
- h. develop a commitment to the profession through harmonization of professional ethics and materialization of professional responsibilities.

5. Course Contents

Contact Hours

Unit 1: Classroom Observation

Learning Outcome

At the end of this unit learners will be able to

- a. at the initial stage of internship an internee has to observe at 3 classes taken by the trained teacher of the cooperating school in each of the two subjects. She/He has to write two reports, one for each subject, highlighting the main features of the lessons observed. Strengths and weakness of the lessons and possible ways of improving the lessons have to e covered in the reports

Unit 2: Teaching in the Classroom

Learning Outcome

At the end of this unit learners will be able to

- a. an internee has to teach at least two subjects under the supervision of two subjects supervisors in the school. She/he shall have to develop Lesson Plans and prepare/ collect necessary teaching aids and take classes. In a semester he/she shall have to take at least 40 classes in each of the two subjects with approved Lesson Plans
- b. during first 30 classes each subject supervisor will supervise at least 6 full classes and provide necessary guidance to the internee to make up his/her deficiencies. During last 10 classes each subject supervisor will observe at least 3 classes to, assess the classroom performance of the internee

Unit 3: Construction and Use of Achievement Tests in

Learning Outcome

At the end of this unit learners will be able to

- a. each internee will construct an achievement test in each subject consisting of at least 50 objective items and structured essay type items and one descriptive essay type item of 50 marks and administer the tests to the class he/she teaches. He/she has to score the scripts and show the scripts to the pupils with a view to bringing to their notice the nature of their error. He/she has to make the statistical analysis of the test result and prepare reports separately for each Subject

Unit 4: Organizing Co-curricular Activities

Learning Outcome

At the end of this unit learners will be able to

- a. each trainee has to organize co-curricular activities for students in the class or in the school. He/she has to arrange rehearsal classes and one final show in presence of the pupils, school head and other teachers of assigned school and his/her school coordinator

Unit 5: Report on Cooperating Assigned School

Learning Outcome

At the end of this unit learners will be able to

- a. an internee will work in the cooperating assigned school for one full semester. He/she has to make an assessment of the school and submit a report to the school coordinator. The report will include, among others, brief history, physical facilities, profile of teachers and students, results of public examination (statistics of 5 years), remarkable characteristics-strengths and weaknesses, areas of concern and suggestions for overcoming the problems and guideline for further improvement of the school

6. Assessment of Internees Performance Activities

	Credit Hours
(a) Classroom Teaching with lesson plans and teaching aids:	
Subject: One (PCP 161)	6
Subject: Two (PCP 162)	6
(b) Organizing Co-curricular Activities (PCP 163)	
Class Observation Report	
School Assessment Report	
Adherence to School Rules	
(One Credit for each of the above four items)	4
(c) Development and use of Achievement Tests, Statistical Analysis of Results and Report Writing:	
Subject: One (PCP 164)	2
Subject: Two (PCP 165)	2
	<hr/>
	Total 20

School Coordinator will assess Co-curricular Activities, Class Observation, Report, School Assessment and Adherence to School Rules. Other activities will be assessed by the concerned Subject Supervisors

১. Course Number: ACL 211

Course Title: জাতি, ভাষা ও ভাষাতত্ত্ব (Nation, Language and Linguistics)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

শিক্ষা (সম্মান) শ্রেণির ভাষাশিক্ষা বিভাগের একটি ঐচ্ছিক বিষয়। শিক্ষার্থীদের বাঙালি জাতি, ভাষা ও ভাষাতত্ত্ব সম্পর্কে ধারণা প্রদানের মাধ্যমে জ্ঞানার্জনে সহায়তা করা এই কোর্সের উদ্দেশ্য।

৪. কোর্সের উদ্দেশ্য

শিক্ষার্থীদের

১. বাঙালি জাতি ও বাংলা ভাষার উদ্ভব এবং বিবর্তনের ইতিহাস সম্পর্কে জানতে সহায়তা প্রদান।
২. ভাষার তাত্ত্বিক দিক সম্পর্কে ধারণালাভে সহায়তা প্রদান।

৬. পাঠ্যসূচি

শিক্ষণ ঘণ্টা

ইউনিট ১ : বাঙালি জাতি ও বাংলাদেশ

৭

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. বাঙালি জাতির বিবর্তন বর্ণনা করতে পারবে
- খ. বাংলাদেশ ও বাঙালি জাতির ক্রমবিকাশের ধারণা ব্যক্ত করতে পারবে

বিষয়বস্তু

- দেশ, দেশ নাম
- উৎস ও পটভূমি

ইউনিট ২: বাংলা ভাষার উদ্ভব ও বিবর্তন

৮

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. পৃথিবীর ভাষাগোষ্ঠীর বৈশিষ্ট্য নির্ণয় করতে পারবে
- খ. বাংলা ভাষার উৎপত্তি সম্পর্কিত বিভিন্ন ধারণা ব্যক্ত করতে পারবে
- গ. প্রাচীন বাংলা থেকে আধুনিক বাংলার ক্রমবিকাশ বর্ণনা করতে পারবে

বিষয়বস্তু

- পৃথিবীর প্রধান ভাষাগোষ্ঠীসমূহ
- ইন্দো-ইউরোপীয় মূলভাষা থেকে বাংলা ভাষার ক্রমিকধারা
- বাংলা ভাষার উৎপত্তি সম্পর্কিত বিভিন্ন মত
- বাংলা ভাষার বিবর্তনের বিভিন্ন স্তর

ইউনিট ৩: ভাষাতত্ত্ব

৫

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষাতত্ত্বের ধারণা ব্যক্ত করতে পারবে
- খ. ভাষাতত্ত্বের পরিধি বর্ণনা করতে পারবে
- গ. ভাষাতত্ত্ব চর্চার প্রয়োজনীয়তা ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- ভাষা ও ভাষাতত্ত্ব
- ভাষাতত্ত্বের পরিধি
- ভাষাতত্ত্ব চর্চার প্রয়োজনীয়তা

ইউনিট ৪: ভাষাতত্ত্বের বিভিন্ন শাখা

১০

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. ভাষাতত্ত্বের বিভিন্ন শাখার ধারণা ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- ধ্বনিতত্ত্ব, রূপতত্ত্ব, বাক্যতত্ত্ব, অর্থতত্ত্ব
- সংজ্ঞা, পরিধি, বৈশিষ্ট্য, শ্রেণিকরণ, শনাক্তকরণ

ইউনিট ৫: ভাষাতত্ত্ব চর্চার পদ্ধতি

১০

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. প্রথাগত ব্যাকরণের ধারণা ব্যক্ত করতে পারবে
খ. তুলনামূলক ও ঐতিহাসিক পদ্ধতির পার্থক্য নিরূপণ করতে পারবে
গ. সাংগঠনিক ও বর্ণনামূলক পদ্ধতি বর্ণনা করতে পারবে
ঘ. রূপান্তরমূলক সৃষ্টিশীল পদ্ধতি ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- প্রথাগত ব্যাকরণ
- তুলনামূলক ও ঐতিহাসিক পদ্ধতি
- সাংগঠনিক বর্ণনামূলক পদ্ধতি
- রূপান্তরমূলক সৃষ্টিশীল পদ্ধতি

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
খ. বক্তৃতা
গ. উপস্থাপনা
ঘ. অংশগ্রহণ
ঙ. প্রশ্নোত্তর
চ. দলীয় কাজ

৭. এ্যাসাইনমেন্ট

ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
খ. এ্যাসাইনমেন্ট
গ. উপস্থাপনা
ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়ক গ্রন্থ

আবুল কালাম মনজুর মোরশেদ (২০০২), আধুনিক ভাষাতত্ত্ব, ঢাকা: মাওলা ব্রাদার্স।
মনসুর মুসা (১৯৯৫), বাঙলা পরিভাষা ইতিহাস ও সমস্যা, ঢাকা: বাংলা একাডেমি।
মুহম্মদ আবদুল হাই (১৯৮৫), ধ্বনিবিজ্ঞান ও বাংলা ধ্বনিতত্ত্ব, ঢাকা: মাওলা ব্রাদার্স।
মহম্মদ দানীউল হক (২০১৩), ভাষাবিজ্ঞানের কথা, ঢাকা: মাওলা ব্রাদার্স।
মুহম্মদ শহীদুল্লাহ (১৯৭৩), বাঙ্গলা ভাষার ইতিবৃত্ত, ঢাকা: রেনেসাস প্রিন্টার্স।
রফিকুল ইসলাম (২০০২), ভাষাতত্ত্ব, ঢাকা: শিখা প্রকাশনী।
সুকুমার সেন (২০০১), ভাষার ইতিবৃত্ত (অষ্টম মুদ্রণ), কলকাতা: আনন্দ প্রকাশনী।
সুভাষ ভট্টাচার্য (২০০০), বাঙালির ভাষা, কলকাতা: আনন্দ পাবলিশার্স প্রাইভেট লিমিটেড।
হুমায়ুন আজাদ (২০০২), তুলনামূলক ও ঐতিহাসিক ভাষাবিজ্ঞান, ঢাকা: আগামী প্রকাশনী।

১. Course Number: ACL 212

Course Title: বাংলা সাহিত্য: রূপ ও রীতি (Bangla Literature: Genres and Styles)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

শিক্ষা (সম্মান) শ্রেণির ভাষাশিক্ষা বিভাগের একটি ঐচ্ছিক বিষয়। এই কোর্সের উদ্দেশ্য শিক্ষার্থীদের বাংলা সাহিত্যের রূপ-রীতি ও সাহিত্যতত্ত্বের আঙ্গিক-বৈচিত্র্য সম্পর্কিত ধারণা প্রদান করা।

৪. কোর্সের উদ্দেশ্য

শিক্ষার্থীদের

১. বাংলা সাহিত্যের আঙ্গিক-বৈচিত্র্য এবং রচনারীতির সাথে পরিচিতি লাভে সহায়তা প্রদান।
২. সাহিত্যতত্ত্বের ধারণা অবহিতকরণ।
৩. ছন্দ ও ছন্দ-বিশ্লেষণ সম্পর্কে ধারণা প্রদান।
৪. সাহিত্যে অলংকার ও তার প্রয়োগ সম্পর্কে অবহিতকরণ।

৫. পাঠ্যসূচি

শিক্ষণ ঘণ্টা

ইউনিট ১: সাহিত্যের রূপ: ক্রমবিকাশ, শ্রেণিকরণ ও স্বরূপ

১২

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. সাহিত্যের ধারণা ব্যক্ত করতে পারবে
- খ. সাহিত্যের আঙ্গিক বৈচিত্র্যের ধারণা ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- সাহিত্য: ধারণা ও বৈশিষ্ট্য
- কবিতা: মহাকাব্য, গীতিকবিতা, ছড়া
- গদ্য: সংবাদপত্রের গদ্য, প্রবন্ধ, নিবন্ধ
- কথা সাহিত্য: উপন্যাস, ছোটগল্প, রম্যরচনা
- নাটক: প্রহসন, কাব্যনাটক, নাট্যকাব্য, রূপকনাটক, পথনাটক

ইউনিট ২: সাহিত্যতত্ত্ব

৮

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ধ্রুপদীবাদ বর্ণনা করতে পারবে
- খ. রোমান্টিসিজম ব্যাখ্যা করতে পারবে
- গ. প্রতীকবাদ ব্যাখ্যা করতে পারবে
- ঘ. আধুনিকতাবাদের পরিচয় দিতে পারবে
- ঙ. উত্তর-আধুনিকতাবাদের বৈশিষ্ট্য উল্লেখ করতে পারবে

বিষয়বস্তু

- ধ্রুপদীবাদ
- রোমান্টিকতাবাদ
- প্রতীকবাদ
- আধুনিকতাবাদ
- উত্তর-আধুনিকতাবাদ

ইউনিট ৩: ছন্দ ও ছন্দ-বিশ্লেষণ

৯

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ছন্দের ধারণা ব্যক্ত করতে পারবে
- খ. ছন্দের প্রকারভেদ বর্ণনা করতে পারবে
- গ. বিভিন্ন প্রকার ছন্দ বিশ্লেষণ করতে পারবে

বিষয়বস্তু

- ছন্দের ধারণা ও প্রকারভেদ
- স্বরবৃত্ত, মাত্রাবৃত্ত, অক্ষরবৃত্ত ও গদ্যছন্দ

ইউনিট ৪: অলংকার

১১

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. অলংকারের ধারণা ও প্রকারভেদ উল্লেখ করতে পারবে
- খ. শব্দালংকারের প্রকারভেদ ও বৈশিষ্ট্য বিশ্লেষণ করতে পারবে
- গ. অর্থালংকারের শ্রেণিবিভাগ ও বৈশিষ্ট্য উল্লেখ করতে পারবে

বিষয়বস্তু

- অলংকারের ধারণা ও প্রকৃতি
- শব্দালংকার ও অর্থালংকার

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
- খ. বক্তৃতা
- গ. উপস্থাপনা
- ঘ. অংশগ্রহণ
- ঙ. প্রশ্নোত্তর
- চ. দলীয় কাজ

৭. এ্যাসাইনমেন্ট

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি।

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়ক গ্রন্থ

দীনেশ কুমার সরকার (১৩৭৮), *বাংলা শেখার রূপরেখা*, কলকাতা: বুক হাউস।
নরেন বিশ্বাস (২০০০), *অলংকার অন্বেষণ*, ঢাকা: অনন্যা।
প্রদ্যোত সেনগুপ্ত (১৯৮২), *বাংলা নাটক, নাট্যতত্ত্ব ও রঙ্গমঞ্চ-প্রসঙ্গ*, কলকাতা: বর্ণালী।
মাহবুবুল আলম (সম্পাদিত) (২০০২), *সাহিত্যেতত্ত্ব*, ঢাকা: খান ব্রাদার্স অ্যান্ড কোম্পানি।
মাহবুবুল আলম (২০০৮), *বাংলা ছন্দের রূপরেখা*, ঢাকা: খান ব্রাদার্স অ্যান্ড কোম্পানি।
মোহাম্মদ মনিরুজ্জামান (২০০৮), *বাংলা কবিতার ছন্দ*, ঢাকা: প্রভাতী প্রকাশন।
রবীন্দ্রনাথ ঠাকুর (১৯৩৮), *বাংলা ভাষা পরিচয়*, কলকাতা: বিশ্ব ভারতী গ্রন্থন বিভাগ।
হাবিব রহমান (সম্পাদিত) (২০১৪), *পাশ্চাত্য সাহিত্যতত্ত্ব ধ্রুপদী ও আধুনিক*, ঢাকা: কথা প্রকাশ।

১. Course Number: ACL 213

Course Title: বাংলা সাহিত্যের ইতিহাস (History of Bangla Literature)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

শিক্ষা (সম্মান) শ্রেণির ভাষা শিক্ষা বিভাগের একটি ঐচ্ছিক বিষয়। এই কোর্সের লক্ষ্য শিক্ষার্থীদের বাংলা সাহিত্যের ইতিহাস এবং বাংলা ভাষা ও সাহিত্যের রাজনৈতিক ইতিহাস, সামাজিক প্রেক্ষাপট, অর্থনৈতিক অবস্থা ও সাংস্কৃতিক বৈশিষ্ট্য সম্পর্কে ধারণা প্রদান।

৪. কোর্সের উদ্দেশ্য

শিক্ষার্থীদের

ক. ঐতিহাসিক, রাজনৈতিক, সামাজিক-সাংস্কৃতিক, ভৌগোলিক, ধর্মীয় ও অর্থনৈতিক প্রেক্ষাপটে বাংলা ভাষা ও সাহিত্যের প্রাচীন, মধ্য ও আধুনিক যুগের সাথে পরিচিতি লাভে সহায়তা প্রদান।

৫. পাঠ্যসূচি

শিক্ষণ ঘণ্টা

ইউনিট ১: বাংলা সাহিত্যের প্রাচীনযুগ

৭

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. প্রাচীন যুগের সাহিত্যের ধারণা ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- প্রাচীন যুগের সাহিত্য

ইউনিট ২: বাংলা সাহিত্যের মধ্যযুগ

১৩

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. মধ্যযুগের সাহিত্য-নিদর্শন বর্ণনা করতে পারবে

বিষয়বস্তু

- মধ্যযুগের সাহিত্য

ইউনিট ৩: বাংলা সাহিত্যের আধুনিক যুগ

১০

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. আধুনিক যুগের সাহিত্যের ধারণা ব্যক্ত করতে পারবে

বিষয়বস্তু:

- আধুনিক যুগের সাহিত্য

ইউনিট ৪: বাংলাদেশের সাহিত্য

১০

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. বাংলাদেশের সাহিত্যের ধারণা ও প্রকৃতি উপস্থাপন করতে পারবে

বিষয়বস্তু

- ১৯৪৭-পরবর্তী বাংলাদেশের সাহিত্য
- ১৯৭১-পরবর্তী বাংলাদেশের সাহিত্য

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
- খ. বক্তৃতা
- গ. উপস্থাপনা
- ঘ. অংশগ্রহণ
- ঙ. প্রশ্নোত্তর

৭. এ্যাসাইনমেন্ট

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়কগ্রন্থ

- অসিত কুমার বন্দ্যোপাধ্যায় (১৩৯০), *বাংলা সাহিত্যের সম্পূর্ণ ইতিবৃত্ত*, কলকাতা: মডার্ন পাবলিকেশন্স প্রাইভেট লিমিটেড।
- গোপাল হালদার (২০০৭), *বাঙলা সাহিত্যের রূপরেখা*, ঢাকা: মুক্তধারা।
- নীহার রঞ্জন রায় (১৪১৬), *বাঙ্গালীর ইতিহাস আদি পর্ব*, কলকাতা: দে'জ পাবলিশিং।
- মুহাম্মদ আব্দুল হাই ও আহমদ শরীফ (সম্পাদিত) (১৩৮০), *মধ্যযুগের বাঙলা গীতিকবিতা*, ঢাকা: মাওলা ব্রাদার্স।
- মুহাম্মদ শহীদুল্লাহ (১৯৭৩), *বাঙ্গলা ভাষার ইতিবৃত্ত*, ঢাকা: রেনেসাঁস প্রিন্টার্স।
- সুকুমার সেন (২০০১), *ভাষার ইতিবৃত্ত (অষ্টম মুদ্রণ)*, কলকাতা: আনন্দ প্রকাশনী।
- সুভাষ ভট্টাচার্য (২০০০), *বাঙালির ভাষা*, কলকাতা: আনন্দ পাবলিশার্স প্রাইভেট লিমিটেড।

১. **Course Number: ACL 214**

Course Title: বাংলা সাহিত্য নিদর্শন (Bangla Literary Works)

২. **ক্রেডিট ঘণ্টা: ৪**

৩. **কোর্সের বর্ণনা**

শিক্ষা (সম্মান) শ্রেণির ভাষা শিক্ষা বিভাগের একটি ঐচ্ছিক বিষয়। এই কোর্সের মাধ্যমে শিক্ষার্থীদের বাংলা সাহিত্য নিদর্শনের ধারণা প্রদানে সহায়তা করা।

৪. **কোর্সের উদ্দেশ্য**

শিক্ষার্থীদের

১. বাংলা সাহিত্যের প্রাচীন থেকে আধুনিক যুগ পর্যন্ত উল্লেখযোগ্য সাহিত্য-নিদর্শন পরিচিতিকরণ।
২. তিরিশোত্তর বাংলা সাহিত্যের এবং ১৯৪৭-উত্তর বাংলাদেশের সাহিত্যের উল্লেখযোগ্য রচনা সম্পর্কে ধারণা প্রদান।

৫. **পাঠ্যসূচি**

ইউনিট ১: কবিতা: প্রাচীন ও মধ্যযুগ

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. প্রাচীন ও মধ্য যুগের কবিদের পরিচিতি বর্ণনা করতে পারবে
- খ. প্রাচীন ও মধ্য যুগের বাংলা ভাষারূপ ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- কাহ্ন পা : আলি এঁ কালি এঁ
- বিদ্যাপতি : আজু রজনী হম
- চণ্ডীদাস : মরণ না জানে
- আলাওল : পদ্মাবতীর রূপ বর্ণনা
- ভারত চন্দ্র : অন্নদার ভবানন্দ যাত্রা
- লালন শাহ্ : খাঁচার ভিতর অচিন পাখী

ইউনিট ২: কবিতা: আধুনিক যুগ

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. আধুনিক যুগের কবিতার ধারণা ও প্রকৃতি ব্যাখ্যা করতে পারবে।

বিষয়বস্তু

- মাইকেল মধুসূদন দত্ত : বঙ্গভাষা
- রবীন্দ্রনাথ ঠাকুর : সাধারণ মেয়ে
- কাজী নজরুল ইসলাম : বাতায়ন পাশে গুবাক তরুর সারি
- জীবনানন্দ দাস : বনলতা সেন
- জসীম উদ্দীন : নকশী কাঁথার মাঠ (অধ্যায়:২)
- শামসুর রাহমান : স্বাধীনতা ভূমি

ইউনিট ৩ : ছোটগল্প

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. বাংলাদেশের ছোটগল্পের ধারণা ও প্রকৃতি বর্ণনা করতে পারবে
- খ. বাংলা ছোটগল্পের বৈশিষ্ট্য উল্লেখ করতে পারবে

শিক্ষণ ঘণ্টা

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৮

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বিষয়বস্তু

- রবীন্দ্রনাথ ঠাকুর : একরাত্রি
- বিভূতিভূষণ বন্দ্যোপাধ্যায় : পুঁইমাচা
- মানিক বন্দ্যোপাধ্যায় : প্রাগৈতিহাসিক
- আবুল মনসুর আহমেদ : ছুর কেবলা
- আখতারুজ্জামান ইলিয়াস : দোজখের ওম

ইউনিট ৪ : প্রবন্ধ

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. বাংলা প্রবন্ধের প্রকৃতি ও ভাববস্তু ব্যাখ্যা করতে পারবে

৬

বিষয়বস্তু

- ঈশ্বরচন্দ্র বিদ্যাসাগর : প্রভাবতী সম্ভাষণ
- রবীন্দ্রনাথ ঠাকুর : সভ্যতার সংকট
- প্রমথ চৌধুরী : যৌবনে দাও রাজটীকা
- কাজী নজরুল ইসলাম : বর্তমান বিশ্ব সাহিত্য

ইউনিট ৫: উপন্যাস

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. উপন্যাসের সামাজিক, রাজনৈতিক ও মনস্তাত্ত্বিক প্রেক্ষাপট বর্ণনা করতে পারবে

৬

বিষয়বস্তু

- শেষের কবিতা (রবীন্দ্রনাথ ঠাকুর)/ গৃহদাহ (শরৎচন্দ্র চট্টোপাধ্যায়)

ইউনিট ৬: নাটক

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. নাটকের সামাজিক, রাজনৈতিক ও মনস্তাত্ত্বিক প্রেক্ষাপট বর্ণনা করতে পারবে

৬

বিষয়বস্তু:

- পায়ের আওয়াজ পাওয়া যায় (সৈয়দ শামসুল হক)/ বিসর্জন (রবীন্দ্রনাথ ঠাকুর)

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
খ. উপস্থাপনা
গ. অংশগ্রহণ
ঘ. প্রশ্নোত্তর

৭. এ্যাসাইনমেন্ট

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়কগ্রন্থ

- অতীন্দ্র মজুমদার (২০১৩), *চর্যাপদ*, ঢাকা: বিভাস।
- অশ্রু কুমার শিকদার (২০০৮), *আধুনিকতা ও বাংলা উপন্যাস*, ঢাকা: অরুণা প্রকাশনী।
- আবদুল মান্নান সৈয়দ (২০১৬), *নজরুল ইসলাম: কবি ও কবিতা*, ঢাকা: নজরুল ইনস্টিটিউট।
- কবিতা সংগ্রহ (১৯৮৫), ঢাকা বিশ্ববিদ্যালয়।
- গল্প সংগ্রহ (১৯৮৬), ঢাকা বিশ্ববিদ্যালয়।
- প্রবন্ধ সংগ্রহ (১৯৮৫), ঢাকা বিশ্ববিদ্যালয়।
- মুহম্মদ আবদুল হাই ও ড. আহমদ শরীফ সম্পাদিত (২০১৩), *মধ্য যুগের বাংলা গীতকবিতা*, ঢাকা: মওলা ব্রাদার্স।
- মুহম্মদ আবদুল হাই ও আনোয়ার পাশা সম্পাদিত (১৯১৪, ক), *চর্যাগীতিকা*, ঢাকা: স্টুডেন্ট ওয়েজ।
- মুহম্মদ আবদুল হাই ও আনোয়ার পাশা সম্পাদিত (১৯১৪, খ), *বড়ু চণ্ডীদাসের কাব্য*, ঢাকা: সালমানী প্রিন্টার্স।
- সৈয়দ আকরাম হোসেন (২০১০), *প্রসঙ্গ: বাংলা কথা সাহিত্য*, ঢাকা: মওলা ব্রাদার্স।
- সৈয়দ আলী আহসান (সম্পাদিত) (১৯৬৮), *আলাওল পদ্মাবতী*, ঢাকা: আহমেদ পাবলিশিং হাউজ।
- সৈয়দ আলী আহসান (১৯৭৬), *মধুসূদনের কবিকৃতি ও বাক্যাদর্শন*, ঢাকা: মুক্তধারা।
- হাবিব রহমান সম্পাদিত (২০১৪), *পাশ্চাত্য সাহিত্যতত্ত্ব ধ্রুপদী ও আধুনিক*, ঢাকা: কথা প্রকাশ।

১. Course Number: ACL 215

Course Title: ভাষা-সাহিত্যের অনুবন্ধ (Relationship of Language and Literature with Other Knowledge Areas)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

শিক্ষা (সম্মান) শ্রেণির ভাষা শিক্ষা বিভাগের একটি ঐচ্ছিক বিষয়। এই কোর্সের মাধ্যমে শিক্ষার্থীদের বাংলা ভাষা ও সাহিত্যের সাথে সমাজ, জাতি, রাষ্ট্র, ইতিহাস, সংস্কৃতি, দর্শন, মনোবিজ্ঞান, বিজ্ঞান ও শিক্ষার প্রাসঙ্গিকতা ও আন্তঃসম্পর্কের ব্যাখ্যা ও বিশ্লেষণে পারদর্শী করা।

৪. কোর্সের উদ্দেশ্য

শিক্ষার্থীদের

ক. ভাষা ও সাহিত্যের সাথে বিভিন্ন অনুসঙ্গের সম্পর্ক সম্পর্কে ধারণালাভে সহায়তা করা।

৫. পাঠ্যসূচি

ইউনিট ১ : ভাষা, সাহিত্য, সমাজ, জাতি ও রাষ্ট্র

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা, সাহিত্য ও সমাজের তুলনামূলক আলোচনা করতে পারবে
- খ. ভাষা, সাহিত্য ও জাতির স্বকীয়তা ব্যাখ্যা করতে পারবে
- গ. ভাষা, সাহিত্য ও রাষ্ট্রের আন্তঃসম্পর্ক ব্যাখ্যা করতে পারবে

বিষয়বস্তু

- ভাষা, সাহিত্য ও সমাজ
- ভাষা, সাহিত্য ও জাতি
- ভাষা, সাহিত্য ও রাষ্ট্র

ইউনিট ২: ভাষা সাহিত্য, ইতিহাস, সংস্কৃতি ও দর্শন

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা ও সাহিত্য ইতিহাসের সম্পর্ক ব্যক্ত করতে পারবে
- খ. ভাষা ও সাহিত্যের সাথে সংস্কৃতির সম্পর্ক বর্ণনা করতে পারবে
- গ. ভাষা ও সাহিত্যে দার্শনিক চিন্তার প্রতিফলন বিশ্লেষণ করতে পারবে

বিষয়বস্তু

- ভাষা, সাহিত্য ও ইতিহাস
- ভাষা, সাহিত্য ও সংস্কৃতি
- ভাষা, সাহিত্য ও দর্শন

ইউনিট ৩: ভাষা, সাহিত্য, বিজ্ঞান ও শিক্ষা

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা ও সাহিত্যে মনোবিজ্ঞানের প্রভাব ব্যাখ্যা করতে পারবে
- খ. ভাষা ও সাহিত্য এবং বিজ্ঞান ও প্রযুক্তির পারস্পারিক সম্পর্ক যুক্তিসহ ব্যাখ্যা করতে পারবে
- গ. ভাষা ও সাহিত্যে শিক্ষার প্রতিফলন বর্ণনা করতে পারবে

শিক্ষণ ঘণ্টা

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১৪

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বিষয়বস্তু

- ভাষা, সাহিত্য ও মনোবিজ্ঞান
- ভাষা, সাহিত্য এবং বিজ্ঞান ও প্রযুক্তি
- ভাষা, সাহিত্য ও শিক্ষা

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
- খ. বক্তৃতা
- গ. উপস্থাপনা
- ঘ. অংশগ্রহণ
- ঙ. দলীয় কাজ

৭. এ্যাসাইনমেন্ট

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন।

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়কগ্রন্থ

- অমল ত্রিপাঠী (১৯৮৮), ইতিহাস ও ঐতিহাসিক, কলকাতা: পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ।
- আনিসুল ইসলাম (২০১২), আধুনিক পাশ্চাত্য দর্শন, ঢাকা: মাওলা ব্রাদার্স।
- আহমদ শরীফ (১৯৮৬), বাংলা ভাষা সংস্কার আন্দোলন, ঢাকা: বাংলাদেশ ভাষা সমিতি।
- পবিত্র সরকার (১৩৯২), ভাষা, দেশ, কাল, কলকাতা: জি. এ. ই. পাবলিশার্স।
- মনসুর মুসা (১৯৯৫), বাংলাদেশের রাষ্ট্রভাষা, ঢাকা: বাংলা একাডেমি।
- মনসুর মুসা (১৯৮৪), ভাষা পরিকল্পনা ও অন্যান্য প্রবন্ধ, ঢাকা: মুক্তধারা।
- মুসা আনসারী (১৯৯২), ইতিহাস: সমাজ ও সংস্কৃতি ভাবনা, ঢাকা: বাংলা একাডেমি।
- মিহির ভট্টাচার্য (২০০৩), ভাষা জাতি ও রাষ্ট্র, কলকাতা: একুশে।
- মুহাম্মদ নাজমুল হক ও অন্যান্য (২০১৮), শিক্ষায় মনোবিজ্ঞান, ঢাকা: বিশ্ব সাহিত্য ভবন।
- রেবতি বর্মণ (২০১৪), সমাজ ও সভ্যতার ক্রমবিকাশ, ঢাকা: ঝিনুক প্রকাশনী।
- রংগলাল সেন ও বিশ্বম্ভর কুমার নাথ (২০০৩), প্রারম্ভিক সমাজবিজ্ঞান, ঢাকা: নিউ এজ পাবলিকেশন্স।
- সুশীল রায় (১৯৯১), শিক্ষাতত্ত্ব ও শিক্ষাদর্শন, ঢাকা: সোমা বুক এজেন্সী।
- হাবিব রহমান (সম্পাদিত) (২০১৪), পাশ্চাত্য সাহিত্যতত্ত্ব ধ্রুপদী ও আধুনিক, ঢাকা: কথা প্রকাশ।

১. Course Number: ACL 216

Course Title: বাঙালির ভাষা ও শিক্ষাচিন্তা (Language and Educational Thoughts of Bangali Scholars)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

শিক্ষা (সম্মান) শ্রেণির ভাষা শিক্ষা বিভাগের একটি ঐচ্ছিক বিষয়। এই কোর্সের মাধ্যমে শিক্ষার্থীদের বাঙালির শিক্ষাচিন্তা সম্পর্কে ধারণা প্রদানের মাধ্যমে ভাষা ও শিক্ষাচিন্তায় উদ্বুদ্ধ করা।

৪. কোর্সের উদ্দেশ্য

শিক্ষার্থীদের

ক. শ্রেষ্ঠ বাঙালি চিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তা এবং তাঁদের গদ্যশৈলী সম্বন্ধে বিশ্লেষণমুখী জ্ঞান ও শিক্ষাচিন্তায় শিক্ষার্থীদের সহায়তা করা।

৫. পাঠ্যসূচি

শিক্ষণ ঘণ্টা

ইউনিট ১: প্রথম পর্যায়ের বাঙালি শিক্ষাচিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তা

১২

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. আধুনিক যুগের প্রথম পর্যায়ের বাঙালি শিক্ষাচিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তা বিশ্লেষণ করতে পারবে

বিষয়বস্তু

১. বঙ্কিমচন্দ্র চট্টোপাধ্যায় : বাঙালা ভাষা
২. রামেন্দ্র সুন্দর ত্রিবেদী : ইংরেজি শিক্ষার পরিণাম
৩. কৈলাস বাসিনী গুপ্তা : হিন্দু অবলা কুলের বিদ্যাভাস
৪. রবীন্দ্রনাথ ঠাকুর : শিক্ষার হেরফের
৫. বিবি খায়রুন্নেসা : আমাদের শিক্ষার অন্তরায়

ইউনিট ২: দ্বিতীয় পর্যায়ের বাঙালি শিক্ষাচিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তা

১৩

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. আধুনিক যুগের দ্বিতীয় পর্যায়ের বাঙালি শিক্ষাচিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তার পর্যালোচনামূলক ব্যাখ্যা করতে পারবে

বিষয়বস্তু

১. সত্যেন্দ্রনাথ বসু : শিক্ষা ও বিজ্ঞান
২. বেগম রোকেয়া সাখওয়াত হোসেন : বঙ্গীয় নারী-শিক্ষা সমিতি
৩. রাজ শেখর বসু : বাংলা ভাষার গতি
৪. কাজী নজরুল ইসলাম : সত্য শিক্ষা, জাতীয় শিক্ষা
৫. জীবনানন্দ দাশ : শিক্ষা দীক্ষা

ইউনিট ৩: তৃতীয় পর্যায়ের বাঙালি শিক্ষাচিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তা

১৫

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

ক. আধুনিক যুগের তৃতীয় পর্যায়ের বাঙালি শিক্ষাচিন্তাবিদদের বাংলা ভাষা ও শিক্ষাচিন্তার ব্যাখ্যা ও বিশ্লেষণ করতে পারবে

বিষয়বস্তু

১. মুহম্মদ শহীদুল্লাহ : আমাদের ভাষা সমস্যা
২. মোতাহের হোসেন চৌধুরী : মধ্যশিক্ষা ও অর্থকরী বিদ্যা
৩. কাজী মোতাহের হোসেন : শিক্ষা-পদ্ধতি
৪. মুনীর চৌধুরী : বাংলা গদ্যরীতি

৫. মোফাজ্জল হায়দার চৌধুরী	: আমাদের শিক্ষা ব্যবস্থা সংস্কার
৬. আহমদ শরীফ	: শিক্ষার হের-ফের
৭. হাসান হাফিজুর রহমান	: শুধু শিক্ষিত নাকি কালচার্ডও?
৮. জাতির জনক বঙ্গবন্ধু শেখ মুজিবুর রহমান	: বক্তৃতামালা (নির্ধারিত)

৬. শিখন শেখানো কৌশল

- ক. আলোচনা
- খ. উপস্থাপনা
- গ. অংশগ্রহণ
- ঘ. দলীয় কাজ

৭. এ্যাসাইনমেন্ট

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি।

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়কগ্রন্থ

আহমদ শরীফ (২০০০), *আহমদ শরীফ রচনাবলী ১*, ঢাকা: আগামী প্রকাশনী।

কাজী নজরুল ইসলাম (১৯৯৩), *নজরুল রচনাবলী ১*, সম্পাদনা: আবদুল কাদির, ঢাকা: বাংলা একাডেমি।

কাজী মোতাহার হোসেন (১৯৮৬), *কাজী মোতাহার হোসেন রচনাবলী দ্বিতীয় খণ্ড*, সম্পাদনা: আবদুল হক, ঢাকা: বাংলা একাডেমি।

কৈলাস বাসিনী গুপ্তা (১৯৯৯), *বাঙালী মেয়ের ভাবনামূলক গদ্য*, সংকলন ও সম্পাদনা: সুতপা ভট্টাচার্য, দিল্লি: সাহিত্য একাডেমি।

বেগম রোকেয়া (১৯৮৪), *বেগম রোকেয়া রচনাবলী*, সম্পাদনা: আবদুল কাদির, ঢাকা: বাংলা একাডেমি।

বঙ্কিমচন্দ্র চট্টোপাধ্যায় (১৪০১), *বঙ্কিম রচনাবলী দ্বিতীয় খণ্ড*, কলকাতা: সাহিত্য সংসদ।

বিবি খায়রুন্নেসা (১৯৯৯), *বাঙালি মেয়ের ভাবনামূলক গদ্য*, সংকলন ও সম্পাদনা: সুতপা ভট্টাচার্য, দিল্লি: সাহিত্য একাডেমি।

মোতাহের হোসেন চৌধুরী (১৯৯৫), *মোতাহের হোসেন চৌধুরী রচনাবলী ১*, সম্পাদনা: সৈয়দ আবুল মকসুদ, ঢাকা: বাংলা একাডেমি।

মোফাজ্জল হায়দার চৌধুরী (১৯৮২), *মোফাজ্জল হায়দার চৌধুরী রচনাবলী দ্বিতীয় খণ্ড*, সম্পাদনা: মোহাম্মদ মনিরুজ্জামান, ঢাকা: বাংলা একাডেমি।

মৌলানা মনিরুজ্জামান এছলামাবাদী (১৯৯৩), *মৌলানা মনিরুজ্জামান এছলামাবাদী রচনাবলী ১ম খণ্ড*, মনিরুজ্জামান সম্পাদিত, ঢাকা: বাংলা একাডেমি।

রবীন্দ্রনাথ ঠাকুর (১৪০৭), *রবীন্দ্র-রচনাবলী (সপ্তদশ খণ্ড)*, কলকাতা: বিশ্ব ভারতী।

Bangabandhu Speech, <https://mujib100.gov.bd/pages/mujib/speeches.html>

1. Course Number: ACL 221

Course Title: English Language Skills and World Literature

2. Credit Hours: 4

3. Course Description

This course has been developed for the students of the English language to further develop their listening, speaking, reading, and writing skills. This course will give learners ample opportunities to practice listening and speaking. So the course consists of both practical and literary works to acquaint learners with literary diction and style.

4. Course Objectives

The objectives are to help learners to

- a. listen to the English language properly and respond accurately.
- b. speak in English with proficiency.
- c. read advanced level texts with ease and comprehension.
- d. use correct English in writing.
- e. write independently on any given topic.

5. Course Contents

Contact Hours

Unit 1: Listening, Speaking, Reading and Writing

12

Learning Outcomes

At the end of this unit learners will be able to

- a. develop all basic language skills
- b. read texts with comprehension
- c. practice all the skills

Content

Headway Series (Intermediate latest edition)

- A world of difference
- The working week
- Good times, bad times
- Getting it right
- Our changing world
- What matters to me
- Passions and fashions
- No fear
- It depends on how you look at it
- All things high tech
- Seeing is believing
- Telling it how it is
- Content will be adjusted to the new editions

Unit 2: Essays and Plays

8

Learning Outcomes

At the end of this unit learners will be able to

- a. write a critical appreciation of literary pieces
- b. answer questions on the text

Content

- Of Friendship by Francis Bacon
- All My Sons by Arthur Miller
(Choose anyone)

Selection from modern novels:

10

- Things Fall Apart by Chinua Achebe
- Untouchable by Mulkraj Anand
(Choose anyone)

Unit 3: Practice of Listening and Speaking

10

Learning Outcomes

At the end of this unit learners will be able to

- a. take part in fruitful speaking activities
- b. respond to spoken English appropriately
- c. communicate with proper understanding

Content

- Listening activities from Headway
- Listening activities from IELTS
- Listening activities from TOEFL
- Contents for speaking practice from Headway, IELTS, TOEFL

6. Instructional strategies

- a. Use of language laboratory
- b. Pair-work
- c. Group discussion
- d. Presentation
- e. Question-answer
- f. Debate
- g. Role-play

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation/Project Work | 10 |

8. Recommended Books, Journals & Reports

A. V. Equipment for Listening and Speaking practice.

News Papers, Magazines, and Journals for authentic reading.

Soars, L., Soars, J., & Wilding, E. (2003). *New headway: Intermediate. Workbook with key.* Oxford University Press.

1. Course Number: ACL 222

Course Title: Grammar Review and 20th Century English Literature

2. Credit Hours: 4

3. Course Description

This course helps learners to develop all four basic language skills including grammatical competence and critical appreciation of selected literary works like short stories, drama etc. At its core, the course is a combination of literature and language. The course also includes intermediate composition and translation from mother tongue to target language and vice-versa.

4. Course Objectives

The objectives are to help learners to

- a. apply the basic English structures required to write an intermediate composition and literary appreciation.
- b. use simple and complex sentence patterns in written compositions and verbal expressions.
- c. define study skills - rapid reading, silent reading, skimming, scanning, etc..
- d. critically appreciate short stories and write coherent and cohesive essays.
- e. translate from mother tongue to target language and vice-versa.

5. Course Contents

Contact Hours

Unit 1: Grammar: Quick review of the following language items

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain complex structures and use them
- b. use different tense forms
- c. use appropriate language in daily life communication

Content

- Parts of speech: noun phrase, adverb, adjective phrase, and articles
- Verb patterns: auxiliary, modal and non-modal base, regular and irregular, transitive and intransitive, gerund
- Appropriate use of tense in spoken and written English
- Expressing permission and ability, obligation-mild and strong
- Degrees of comparison

Unit 2: Reading for Comprehension

7

Learning Outcomes

At the end of this unit learners will be able to

- a. use English reading skills confidently
- b. read any kind of texts with comprehension

Content

All language skills with special emphasis on

- Analytic reading
- Critical reading
- Note-taking skills; and
- Reading strategies

Unit 3: Drama

10

Learning Outcomes

At the end of this unit the learners will be able to

- a. read the drama with comprehension
- b. act out the drama on the stage
- c. practice dialogue, role play, and simulation
- d. analyze the characters of the drama
- e. analyze the drama from the literary point of view

Content Select anyone

- Arms and the Man by G. B. Shaw
- Look back in Anger by John Osborne

Unit 4: Short Stories Selections

10

Learning Outcomes

At the end of this unit the learners will be able to

- a. read short stories with comprehension
- b. answer questions from the stories
- c. analyze the plot and characters in a story

Content Select anyone

- The Daily Women by Niaz Zaman,
- The Colonel's Lady by Somerset Maugham

Unit 5: Translation from English to Bangla and Vice-versa

5

Learning Outcomes

At the end of this unit learners will be able to

- a. translate from Bangla to English
- b. translate from English to Bangla
- c. use appropriate techniques of translation

Content

- Importance of translation
- Types of translation
- Techniques of translation
- Practice of translation

6. Instructional Strategies

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Presentation
- f. Debate
- g. Practice

7. Assessment	Marks (%)
a. Two In-course Examinations	$15 \times 2 = 30$
b. Course Final Examination (MCQ + Essay)	$20 + 40 = 60$
c. Assignment/Presentation/Project Work	10

8. Recommended Books, Journals, and Reports

Leech, G., & Syartvik, K. (1975, Reprint 1993). *A communicative grammar of English* Longman.

Sohn, D. A. (1989). *Writing by doing: learning to write effectively*, (2nd Edition). NTC Publishing group.

Swan, M. (1989, A). *Basic English usage*. Oxford University Press.

Swan, M. (1989, B). *Practical English usage*. Oxford University Press.

Wren, P. C., & Martin, H. (1936, Reprinted 1995). *High school English grammar and composition*. S. Chand & Company Ltd.

1. Course Number: ACL 223

Course Title: English Language and Literature (16th to 20th Century)

2. Credit Hours: 4

3. Course Description

This course is designed to keep in view the basic needs of the learners in language and literature. The course includes further development of the advanced composition. The language works practiced here is based on the literary works chosen from English literature.

4. Course Objectives

The objectives are to help learners to

- a. distinguish the criteria of various kinds of poems, ballads, epics, sonnets.
- b. critically evaluate the language of literary works: poems, novels, dramas.
- c. be equipped with the mechanics of reading: skimming, scanning, in going through considerably long and authentic texts.
- d. explain various components of rhetoric and prosody.

5. Course Contents

Contact Hours

Unit 1: Drama and Novel

15

Learning Outcomes

At the end of this unit the learners will be able to

- a. read text with comprehension
- b. act out drama and role play
- c. answer questions on the plays

Content

- As You Like It by W. Shakespeare
- Animal Farm by George Orwell

Unit 2: Poems

15

Learning Outcomes

At the end of this unit the learners will be able to

- a. recite poems with correct stress and intonation
- b. write critical appreciation of literary pieces

Content

Selections from the following poets:

- John Donne
- William Shakespeare (Sonnets)
- William Wordsworth
- John Keats
- Robert Browning
- W. B. Yeats
- Emily Dickinson
- Percy Bysshe Shelley

Unit 3: Language Learning Outcomes

10

At the end of this unit learners will be able to

- a. analyze literary text and write reviews on them
- b. read the texts, scan, and summarize

Content

- Advanced composition based on literary works
- Writing of academic quality (application, analysis, synthesis, and evaluation)
- Scanning
- Summarizing
- Explaining
- Evaluating

6. Instructional Strategies

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation and Debate
- f. Assignment

7. Assessment

Marks (%)

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation/Project Work | 10 |

8. Recommended Books, Journals, and Reports

Goodman, W.R. (1973), *Aristotle: The poetics*. Engine Printing Press.
Greenblatt, S., & Christ, C. T. (Eds.). (2012). *The Norton anthology of English literature* (Vol. 1). W. W. Norton & Company.
Sohn, D. A. (1989). *Writing by doing: Learning to write effectively*, (2nd Edition). NTC Publishing Group.

1. Course Number: ACL 224

Course Title: History of English Language and Linguistics

2. Credit Hours: 4

3. Course Description

This course includes a brief discussion on the History of the English Language and a general introduction to various components of linguistics. This course provides an overview of ELT (English Language Teaching). The course further deals with various linguistics components including phonemics, phonetics, morphology, syntax, and semantics.

4. Course Objectives

The objectives are to help learners to

- a. identify the chronological development of the English language.
- b. narrate the Indo-European family of languages and pinpoint the places of Indian languages in the family tree.
- c. define various components of linguistics.
- d. find the interrelationship between language and communication.
- e. identify the rules of phonetics and phonemic.
- f. transcribe English and Bangla in the International Phonetic Alphabet.

5. Course Contents

Contact Hours

Unit 1: A brief History of the English Language

10

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the chronological development of linguistics
- b. analyze the historical development of linguistics

Content

- History of language and linguistics from 450 AD to the present time

Unit 2: Linguistics: Language and Communication

12

Learning Outcomes

At the end of this unit learners will be able to

- a. explain linguistics and phonetics
- b. analyze phonology and morphology

Content

- Concept of linguistics and its branches
- Phonetics: the study of the speech sounds
- Phonology: the study of sound structure
- Morphology: the study of the structure of words

Unit 3: Syntax and Semantics

18

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze syntax
- b. explain semantics

Content

- Syntax: the study of sentence structures
- Semantics: the study of meaning and denotation

6. Instructional Strategy

- Use of laboratory
- Lecture
- Question-answer
- Pair-work
- Group discussion
- Individual presentation
- Debate
- Guided discussion

7. Assessment

	Marks (%)
a. Two In-course Examinations	$15 \times 2 = 30$
b. Course Final Examination (MCQ + Essay)	$20 + 40 = 60$
c. Assignment/Presentation/Project Work	10

8. Recommended Books, Journals, and Reports

Akmajian, A., Demers, R. A., Farmer, A. K., & Harnish, R. M. (1990). *Linguistics: An introduction to language and communication*. The MIT Press.

Baugh, A. C., & Cable, T. (2020). *A history of the English language*. New York.

1. Course Number: ACL 225

Course Title: Transformational Grammar and Branches of Linguistics

2. Credit Hours: 4

3. Course Description

This is a special course that offers a brief study of Transformational Grammar and an intensive practice on advanced linguistics. This course is also a preparation for higher-level courses on recent Grammar, Government, and Binding theories and EAP (English for Academic Purpose) offered in ELT major.

4. Course Objectives

The objectives are to help learners to

- a. identify and describe the basic features of transformational grammar.
- b. distinguish between surface structures and deep structures of simple and compound sentences in English.

5. Course Contents

Contact Hours

Unit 1: Basic Concept of Transformational Grammar

15

Learning Outcomes

At the end of this unit the learners will be able to

- a. explain the theories of language
- b. analyze universal grammar

Content

- Theories of learning a language
- Grammar of a language
- Particular/ universal grammar
- Linguistic intuition
- Computational linguistics
- Grammaticality
- Rule-governed creativity
- Levels of adequacy
- Markedness
- Phrase, structure Rules
- Lexicon

Unit 2: Transformations

10

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze structures of English
- b. explain different types of questions

Content

- Surface and deep structures
- Auxiliaries
- Yes-No questions
- WH-questions

- Relative clauses
- Aspect of complementation

Unit 3: Components of Linguistics

15

Learning Outcomes

At the end of this unit learners will be able to explain the idea of

- Socio-linguistics
- Psycho-linguistics
- Neuro-linguistics
- Pragmatics

Content

- Socio-linguistics: concept, scope, the relationship between language and society, language variation
- Psycholinguistics: concept, scope, language mind, language and thought language and motivation
- Neurolinguistics: language and brain
- Pragmatics: definition and background, programmatic competence

6. Instructional Strategy

- Lecture
- Question-Answer
- Pair-work
- Group Discussion
- Individual Presentation
- Debate
- Guided discussion

7. Assessment

Marks (%)

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation/Project Work | 10 |

8. Recommended Books, Journals, and Reports

- Akmajian, A., Demers, R. A., Farmer, A. K., & Harnish, R.M. (1990). *Linguistics: An introduction to language and communication*. The MIT Press.
- Fabbro, F. (2013). *The neurolinguistics of bilingualism: An introduction*. Psychology Press.
- Holmes, J. (2013). *An introduction to sociolinguistics*. Routledge.
- Leech, G. N. (2016). *Principles of pragmatics*. Routledge.
- Spolsky, B. (1998). *Sociolinguistics* (Vol. 1). Oxford University Press.
- Steinberg, D. D., & Sciarini, N. V. (2013). *An introduction to psycholinguistics*. Routledge.
- Traxler, M., & Gernsbacher, M. A. (Eds.). (2011). *Handbook of psycholinguistics*. Elsevier.
- Wardhaugh, R. (2011). *An introduction to sociolinguistics* (Vol. 28). John Wiley & Sons.

1. Course Number: ACL 226

Course Title: Discourse Analysis, and Research in ELT

2. Credit Hours: 4

3. Course Description

This is a special course that offers a brief study of Discourse Analysis and language processing. It also offers learners intensive practice in researching the area of language learning and teaching. The course also puts due emphasis on techniques of advanced composition. The objectives of the course are identified according to the perceived needs of the students with a major at the undergraduate level. The English language learners are expected to emerge as advanced ESL learners at the end of this course.

4. Course Objectives

The objectives are to help learners to

- a. state different concepts of discourse analysis.
- b. distinguish between discourse analysis and language processing.
- c. write advanced composition using proper planning, organization, cohesion, and coherence.
- d. write research proposal independently.

5. Course Contents

Contact Hours

Unit 1: Discourse Analysis and Language Processing

12

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the aims and objectives of discourse analysis
- b. analyze different approaches to discourse analysis

Content

- The aims and objectives of discourse analysis
- Approaches to discourse analysis: reference, presupposition, implicature, and inference
- The idea of spoken and written texts
- Cohesion: cohesive devices in discourse analysis (Ellipsis, lexical and grammatical cohesion, substitution)

Unit 2: Maxims and Theories of Speech Act

12

Learning Outcomes

At the end of this unit learners will be able to

- a. explain and analyze speech acts
- b. explain the theories of speech acts

Content

- Speech acts-the cooperative principle and flouting of maxims
- Theories of direct speech acts (J. L. Austin and Searle)
- Conversation analysis: exchange structure as turn-taking, preferred organization, adjacency pair, inserted sequences, topic conflict
- Politeness in discourse: six principles
- Discourse analysis and language teaching

Unit 3: ELT research and Advanced Composition

16

Learning Outcomes

At the end of this unit learners will be able to

- a. develop research proposal
- b. conduct researches in the area of ELT
- c. write academic reports

Content

- a. ELT research techniques: theoretical understanding
- b. Reviewing the literature for research
- c. Preparing research proposal and research critiques
- d. Developing academic writing and research report
- e. Control of the writing process and sentence structures, organization, paragraphing, coherence and cohesion, etc.
- f. Use of evidence and style and formatting following APA
- g. Techniques of avoiding plagiarism

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation
- f. Debate

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation/Project Work | 10 |

8. Recommended Books, Journals, and Reports

- Bell, J. (1999). *How to complete your research project successfully: (a guide for first-time researchers)*. UBSPD.
- Brown, G. and Yule, G. (1983) *Discourse analysis*. Cambridge University Press.
- Coulthard, M. (2014). *An introduction to discourse analysis*. Routledge.
- Denscombe, M. (2014). *The good research guide: for small-scale social research projects*. McGraw-Hill Education.
- Gee, J. P. (2014). *An introduction to discourse analysis: Theory and method*. Routledge.
- J. Creswell (2018), *A mixed method research design*
- Johnson, D. M. (1991). *Approaches to research in second language learning*. Addison-Wesley Longman Limited.
- Levinson, C. S. (1983) *Pragmatics*. Cambridge University Press.
- McCarthy, M. (1991). *Discourse analysis for language teachers*. Cambridge University Press.
- Murcia, M. C. & Fireman, D. L (1983). *The grammar book: An ESL EFL teachers course*. Newbury House Publishers.
- Publication manual of the American psychological association (APA), Sixth Edition (2009)*. Washington, D. C.

1. Course Number: ACSS 231

Course Title: History-One: Ancient Civilizations

2. Credit Hours: 4

3. Course Description

The Course is designed to provide knowledge and understanding of the stages of development of human society along with a glimpse of pre-historic age. Focus has been given on the nature and changing pattern of Ancient Civilizations.

4. Course Objectives

The objectives are to help learners to

- a. know the Historical stages as well as concept, nature the importance of studying History.
- b. provide them knowledge with Pre-history and Historic ages.
- c. understand the meaning and connotation of civilization.
- d. acquire knowledge and understanding about the rise and fall of different civilizations.
- e. help them comprehend the historical events, the consequences and the contribution of these civilizations in the creation and development of human knowledge and culture.

5. Course Contents

Contact Hours

Unit 1: History as a Discipline

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the meaning, scope and nature of history
- b. analyse the importance of studying history

Content

- Concept, scope and nature of history
- Importance of studying history

Unit 2: The Age of Prehistory and History

5

Learning Outcomes

At the end of this unit learners will be able to

- a. distinguish between pre-historic and historic age
- b. discuss the characteristics of paleolithic, neolithic and age of metals

Content

- Pre-historic and historic age
- Paleolithic Age
- Neolithic Age
- Age of Metals

Unit 3: Nature and Development of Civilizations

5

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the location and period of Egyptian civilization
- b. explain the geographical factors for the growth of Egyptian civilization
- c. describe the nature of Government and people of this ancient civilization
- d. discuss the characteristics of religion in different phases in Egyptian civilization

Content

- Egyptian Civilization
- Geographical factors for the growth of Egyptian Civilization
- Government and people
- Religion:
 - Simple Polytheism
 - Monotheism
 - Polytheism

Unit 4: Mesopotamian Civilization

6

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the major features and achievements of Sumerian and Babylonian Civilization
- b. distinguish between the characteristics of Sumerian and Babylonian Civilization

Content

- Major features, characteristics and achievements of the Sumerian and Babylonian civilization
- The Babylonian civilization

Unit 5: Percisian Civilization

4

Learning outcomes

At the end of this unit learners will be able to

- a. discuss the emergence of Percisian civilization
- b. discuss the administration and religion in Percisian civilization

Content

- Emergence of Percisian civilization
- Administration and religion of Percisian civilization

Unit 6: Indian Civilization

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the location of Indus Valley Civilization
- b. discuss the major features and achievements of Indus Valley civilization
- c. describe the features and achievements of Aryan civilization

Content

- Location, major features and achievements of the Indus Valley Civilization
- Features and achievements of the Aryan Civilization

Unit 7: Ancient Civilization of China

4

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the religion, society and economic life of people in ancient civilization of China
- b. analyze the philosophical achievements in ancient civilization of china

Content

- Religion, society and economic life in ancient China Civilization
- Philosophical achievements in ancient China Civilization

Unit 8: Greek Civilization

4

Learning Outcomes

At the end of this unit learners will be able to

- discuss the characteristics of city states and social classes in ancient Greek civilization
- evaluate the age of Pericles

Content

- City states and social classes in ancient Greek Civilization
- The age of Pericles

Unit 9: Roman Civilization

4

Learning Outcomes

At the end of this unit learners will be able to

- describe the origin of ancient Roman Civilization
- discuss the political and social organization of ancient Roman civilization
- explain the causes of decline of the Roman civilization

Content

- Origin of ancient Roman Civilization
- Political and social organization of ancient Roman civilization
- Decline of Roman civilization

6. Instructional Strategies

- Lecture
- Class discussions
- Presentation
- Class/home assignment

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Bury, J. B. (1906). *A History of Greece to the Death of Alexander the Great*. Macmillan and Company Limited.
- Huntington, E. (1924). *Civilization and climate*. Yale University Press.
- Childe, G., & Childe, V. G. (1964). *What happened in history*. Puffin Books.
- Croce, B. (2019). *History of Europe in the nineteenth century*. Routledge.
- Clark, K. (2015). *Civilisation*. Hachette.
- Fisher, H. A. L. (1935). *A History of Europe: Ancient and mediaeval* (Vol. 1). Houghton Mifflin.
- Jenkins, K. (2003). *Refiguring history: New thoughts on an old discipline*. Psychology Press.
- Lambert, P., & Schofield, P. (Eds.). (2004). *Making history: an introduction to the history and practices of a discipline*. Routledge.
- Lemon, M. C. (2002). *The discipline of history and the history of thought*. Routledge.
- Loewe, M., & Shaughnessy, E. L. (Eds.). (1999). *The Cambridge history of ancient China: From the origins of civilization to 221 BC*. Cambridge University Press.

- Moller, H. (1965). Affective mysticism in Western civilization. *Psychoanalytic Review*, 52(2), 115-130.
- Molony, B., Brummett, P. J., Edgar, R. R., Hackett, N. J., & Jewsbury, G. F. (2006). *Civilization Past & Present*. Longman
- Potts, D. T. (1997). *Mesopotamian civilization: the material foundations*. A & C Black.
- অমলেশ ত্রিপাঠী (১৯৮৮), *ইতিহাস ও ঐতিহাসিক*, কলিকাতা: পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ।
- এ কে এম শাহনাওয়াজ (১৯৯৬), *বিশ্ব সভ্যতা প্রাচীন যুগ*, ঢাকা: প্রতীক প্রকাশনা সংস্থা।
- মুসা আনসারী (১৯৯২), *ইতিহাস: সমাজ ও সংস্কৃতি ভাবনা*, ঢাকা: বাংলা একাডেমী।
- মরিস বুকাইলি (১৯৯৬), *মানুষের আদি উৎস (The origin of Man)*, রূপান্তর: আখতার-উল্-আলম, ঢাকা: জ্ঞানকোষ প্রকাশনী।
- মরিস বুকাইলি (২০০০), *বাইবেল, কোরআন ও বিজ্ঞান*, রূপান্তর: আখতার-উল্-আলম, ঢাকা: জ্ঞানকোষ প্রকাশনী।

1. Course Number: ACSS 232

Course Title: History-Two: History of Bangladesh

2. Credit Hours: 4

3. Course Description

The Course deals with the socio-economic, political and cultural history of Bangladesh from the earliest time to the present (1971). The course starts with the Pala and Sena rules in Bengal and then proceeds to the medieval period. However, the focus has been given on the British rule in India, the socio-political, cultural and economic situation of the division of Indian subcontinent leading to emergence of Bangladesh.

4. Course Objectives

The objectives are to help learners to

- a. acquire knowledge about the Pala and Sena Rules in Bengal.
- b. understand the nature and characteristics of the Muslim rule in Bengal in the medieval period.
- c. analyse the factors contributing to the establishment of British colonial power in Bengal.
- d. discuss the East India Company's acquisition of direct control of administration.
- e. acquaint them with the economic and social development and religious reform movements under the Company rule.
- f. discuss administrative and constitutional reforms and the socio-political, cultural and economic events during 1935.
- g. describe political developments of Bengal leading to the partition of the subcontinent.
- h. analyse the socio-political, cultural movements and economic factors for the liberation war of Bangladesh in 1971.

5. Course Contents

Contact Hours

Unit 1: Pala and Sena Rule in Bengal

7

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the establishment of Pala rule and its expansion in Bengal
- b. analyze the Sena rule and its decline

Content

- Establishment of Pala rule and its expansion in Bengal
- Sena rule and its decline

Unit 2: Bengal in the Medieval Period

5

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the Muslim conquest of Bengal and consolidation of their rule
- b. explain the golden period of Hussain Shah
- c. discuss the major events in Bengal under the Mughals
- d. analyze the Mughal's conquest of Bengal
- e. analyze the achievements in Bengal during the rule of Shaista Khan
- f. explain the major events during the Nawabi rule in Bengal

Content

- Muslim conquest of Bengal and consolidation of their rule
- Golden period of Hussain Shah
- Bengal under the Mughals
- Mughals conquest of Bengal
- The rule of Shaista Khan
- The Nawabi rule in Bengal (Murshid Kuli to Mir Zafar Ali Khan)

Unit 3: Colonial Power in Bengal (1756-1765)

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the impact of coming of the Europeans and their establishment in Bengal till the acquisition of Dewani

Content

- Coming of the Europeans and their establishment in Bengal (till the acquisition of Dewani)

Unit 4: Bengal under Dewani Administration (1765-1772)

2

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the dual Government in Bengal
- b. analyze the causes of the famine of 1769-1770 and its effect

Content

- Dual Government in Bengal
- The famine of 1769-1770 and its effect

Unit 5: The East India Company's acquisition of Direct Control of Administration (1772-1793)

2

Learning Outcomes

At the end of this unit learners will be able to

- a. evaluate the administrative, revenue and judicial reforms of Lord Warren Hastings and Lord Cornwallis

Content

- Lord Warren Hastings and Lord Cornwallis: Administrative, revenue and judicial reforms.

Unit 6: Economic and Social Developments and Religious Reform Movements under the Company Rule

7

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the economic and social development and religious reform movements in Bengal under the Company rule

Content

- Industrial decline of Bengal
- Reform movements in the early 19th century
- Lord William Bentinck and his social, economic and financial reforms

- Raja Ram Mohan Roy and his contributions
- Bengal Renaissance
- Young Bengal movement
- Haji Shariatullah-The Faraizi Movement and the agrarian unrest
- Indigo cultivation and the Blue Mounting

Unit 7: Administrative Reforms

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the causes of the partition of Bengal and its consequences
- b. discuss the development of local government and constitutional reforms leading to the act of 1935

Content

- The partition of Bengal 1905
- Development of local government and constitutional reforms leading to the Act of 1935

Unit 8: Political Development of Bengal (1919-1947)

4

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the major political development of Bengal during 1919-1947

Content

- Bengal Pact
- Formation of Krishak-Praja Party
- Working of provincial autonomy
- The communal problem and the Lahore Resolution
- Political developments leading to the partition of the subcontinent

Unit 9: East Bengal from 1947 to 1971

8

Learning Outcomes

At the end of this unit learners will be able to

- a. analysis the major events in East Bengal and their consequences from 1947 to 1971

Content

- Land reform and the abolition of the Permanent Settlement
- Foundation of the Awami League
- Language Movement 1952
- United Front and the failing of the Muslim League Government
- Promulgation of Martial Law in 1958
- The rule of Ayub Khan
- The 1965 Mass movement
- Rule of Yahya Khan
- Liberation war and the emergence of Independent Bangladesh in 1971

6. Instructional Strategies

- Lecture/Discussion
- Power point presentation
- Class/home assignment

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Ahmad, K. (1970). *A Social History of Bengal*. Progoti Publishers.

Ahmad, K. (1975). *A socio political history of Bengal and the birth of Bangladesh*. Inside Library.

Bishwas, S. (2005). *Bangladesh Liberation War, Mujibnagar Government Documents, 1971*. Mawla Brothers.

Desai, A. R. (1949). *Social Background of Indian Nationalism*. Oxford University Press.

Hensher, P. (2013). *The war Bangladesh can never forget*. The Independent.

Huq, M. S. (1995). *Bangladesh in International Politics*. The University Press Limited.

Islam, S. (1997). *History of Bangladesh 1704-1971* (Ed.), Vol. I, II & III. Asiatic Society of Bangladesh.

Jacob, J F R (1997). *Surrender at Dacca-Birth of a Nation*. The University Press Limited.

Jahan, R. (2005). *Bangladesh Politics: Problems and Issues*. The University Press Limited.

Quaderi, F, Q. (1972). *Bangladesh Genocide and World Press*. Begum Dilafriz Quaderi

Rashid, H, (2005), *Economic Geography of Bangladesh*. The University Press Limited.

Salik, S. (1977). *Witness to Surrender*. The University Press Limited.

আবদুল করিম (১৯৮৭), *বাংলার ইতিহাস সুলতানী আমল*, ঢাকা: বাংলা একাডেমী।

আবদুল করিম (১৯৯৯), *বাংলার ইতিহাস মুসলিম বিজয় থেকে সিপাহী বিপ্লব পর্যন্ত (১২০০-১৮৫৭ খ্রি:)*, ঢাকা: বড়াল প্রকাশনী।

জাহানারা ইমাম (১৯৯৯), *একাত্তরের দিনগুলি (দ্বাবিংশতম মুদ্রণ)*, ঢাকা: সন্ধানী প্রকাশনী।

সিরাজুল ইসলাম (২০১৭), *বাংলাদেশের ইতিহাস ১৭০৪-১৯৭১ (সম্পাদিত)*. ১ম, ২য় ও ৩য় খণ্ড. তৃতীয় সংস্করণ, ঢাকা: বাংলাদেশ এশিয়াটিক সোসাইটি।

এম. আর. আখতার মুকুল (২০১৮), *চরমপত্র*, ঢাকা: অনন্যা।

এম, এ. রহিম (১৯৭৬), *বাংলার মুসলমানদের ইতিহাসের (১৭৫৭-১৯৪৭ খ্রি:)*, ঢাকা: নূরজাহান রহিম।

মুহম্মদ আবদুর রহিম ও অন্যান্য (১৯৯৫), *বাংলাদেশ ইতিহাস*, ঢাকা: নওরোজ কিতাবিস্তান।

শেখ মুজিবুর রহমান (২০১৬), *অসমাপ্ত আত্মজীবনী*, ঢাকা: ইউনিভার্সিটি প্রেস লিমিটেড।

হারুন-অর রশিদ (২০০৮), *৭ই মার্চের ভাষণ কেন বিশ্ব ঐতিহ্যের সম্পদ: বঙ্গবন্ধু মুক্তিযুদ্ধ বাংলাদেশ*, ঢাকা: অন্য প্রকাশ।

হারুন-অর রশিদ (২০১৬), *‘আমাদের বাঁচার দাবী’: ৬ দফার ৫০ বছর*, ঢাকা: বাংলা একাডেমি।

মোনায়েম সরকার (২০০১), *বাংলাদেশের সংক্ষিপ্ত ইতিহাস*, ঢাকা: আগামী প্রকাশনী।

সিরাজুল ইসলাম (সম্পাদিত). (১৯৯২). *বাংলাদেশ ইতিহাস ১৭০৪-১৯৭১*, ১ম খণ্ড (রাজনৈতিক ইতিহাস), ঢাকা: এশিয়াটিক সোসাইটি অব বাংলাদেশ।

1. Course Number: ACSS 233

Course Title : History-Three : History of Europe and Contemporary World

2. Credit Hours: 4

3. Course Description

This Course is designed to provide knowledge of modern Europe with a background of medieval history. History of some countries of the contemporary world is also added so that the students have an overall understanding of contribution of these nations in shaping the modern world.

4. Course Objectives

The objectives are to help learners to

- a. acquaint students with the major events of medieval Europe.
- b. know and understand the historical events, forces and trend in shaping Modern Europe.
- c. understand the main features and characteristics of Modern Europe and its contribution.
- d. explore the power struggle in Europe leading to World Wars.

1. Course Contents

Contact Hours

Unit 1: Emergence of Modern Europe

9

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the causes and effect of disintegration of the Feudal system in Europe
- b. analyze the reasons for rising of the Nation state
- c. discuss the background of the Renaissance in Italy and in Europe and its impact
- d. explain the causes of the decline of the Medieval Church

Content

- Disintegration of the Feudal System
- Rise of the Nation States
- Renaissance in Italy and in Europe
- Decline of the Medieval Church

Unit 2: Discovery, Commerce and the Age of Reason

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the growth of commerce and industry
- b. analyze the beginning of colonialism
- c. estimate the achievements in science, philosophy, literature and art

Content

- Growth of Commerce and Industry
- Beginning of Colonialism
- Achievements in science, philosophy, literature and art

Unit 3: The Power Struggle in Europe (1500-1800)

6

Learning outcomes

At the end of this unit learners will be able to

- a. discuss the major events relating to power struggle in Europe during 1500-1800 A.D

Content

- The English Civil Wars
- Louis XIV and the Golden Age of France
- Rise of Russia and Prussia
- Struggle against Absolutism
- The Age of Democratic Revolution (in England, France and America)

Unit 4: Industrialization

2

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the industrial revolution and its consequences

Content

- Industrial Revolution and its consequences

Unit 5: Nationalism and Democracy

6

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the unification of Italy
- b. discuss the unification of Germany under the Kaiser
- c. explain the democratic struggle in Europe

Content

- Unification of Italy
- Germany under the Kaiser
- Democratic struggles in Europe

Unit 6: Socialism, Liberalism and New Imperialism

5

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the growth of communism in Russia, Fascism in Italy and Nazism in Germany
- b. explain the impact of growing socialism, liberalism and new imperialism

Content

- Growth of
 - Communism in Russia
 - Fascism in Italy
 - Nazism in Germany
- Impacts of growing socialism, liberalism and new imperialism

Unit 7: First and Second World Wars

8

Learning outcomes

At the end of this unit learners will be able to

- a. explain the perspective of the Eastern Question
- b. discuss the context of the world war I and its consequences
- c. analyze the major events in inter-war period
- d. explain the causes of world war II and its consequences
- e. discuss the emergence of the United Nations Organizations

Content

- The Eastern Question
- World War I: 1914-18
- Inter-War Period
- World War II: 1938-45
- United Nations Organizations

6. Instructional Strategies

- a. Lecture/discussions
- b. Power point slides presentation
- c. Class/home assignment

7. Assessment

- a. Two In-course Examinations $15 \times 2 = 30$
- b. Course Final Examination (MCQ + Essay) $20 + 40 = 60$
- c. Assignment/Presentation 10

8. Recommended Books, Journals and Reports

- Davis, H. W. C. (1911). *Medieval Europe* (Vol. 22030). H. Holt.
- Fitzpatrick, S., & Gellately, R. (1996). Introduction to the practices of denunciation in modern 3. European history. *The Journal of Modern History*, 68(4), 747-767.
- Gallagher, M., Laver, M., & Mair, P. (2011). *Representative government in modern Europe*. McGraw-Hill.
- Harvey, D. (2005). *The new imperialism*. OUP Oxford.
- Hayes, J. H. (1945). *Political and cultural history of modern europe*. Mc millan.
- Hazen, C. D. (1919). *Modern European History*. Lulu. com.
- Hobhouse, L. T. (1964). *Liberalism*. Oxford University Press.
- Holmes, G. (Ed.). (2001). *The Oxford illustrated history of medieval Europe*. Oxford Illustrated History.
- Marshall, S. L. A. (2001). *World war I*. Houghton Mifflin Harcourt.
- Reddy, W. M., Reddy, W. M., & Reddy, W. M. (1987). *Money and liberty in modern Europe: A critique of historical understanding*. Cambridge University Press.
- Seignobos, C. (1895). *Civilisation during the middle ages*. Presses Universitaires de France
- Sheehan, J. J. (2009). *Where have all the soldiers gone?: the transformation of modern Europe*. Houghton Mifflin Harcourt.
- Stokesbury, J. L., & Lawenstein, R. (1981). *A short history of World War I* (p. 352). Morrow.
- Sulzberger, C. L. (1985). *World War II*. Houghton Mifflin Harcourt.
- Thompson, J. W. (2016). *History of the Middle Ages: 300-1500*. Routledge.
- Von Mises, L. (2012). *Liberalism*. Liberty Fund.
- Wallbank, T. W., & Taylor, A. M. (1944). *Civilization past and present. I (1944)*. Scott, Foresman.
- Wiesner-Hanks, M. E. (2006). *Early Modern Europe, 1450-1789* (Vol. 2). Cambridge University Press.

অতুল চন্দ্র রায় (১৯৯৬), আধুনিক ইউরোপের ইতিহাস, কলিকাতা: মৌলিক লাইব্রেরী।

আবুল কালাম (১৯৮৮), নাপোলিও বোনাপার্ত রণনীতি ও কূটনীতি, ঢাকা: বাংলা একাডেমী।

কিরণ চন্দ্র চৌধুরী (১৯৯৬), আধুনিক ইউরোপ, কলিকাতা: ওরিয়েন্টাল বুক কোম্পানী প্রাঃ লিমিটেড।

নুরুননাহার বেগম ও আবদুল হালিম (১৯৯১), মানুষের ইতিহাস মধ্যযুগ, ঢাকা: আগামী প্রকাশনী।

নির্মল চন্দ্র দত্ত (১৯৯৪), মধ্যযুগের ইউরোপ, (প্রথম ও দ্বিতীয় খণ্ড), কলিকাতা: পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষৎ।

পুলকেশ রায় (১৯৯৭), মধ্যযুগের ইইরোপ রাষ্ট্র সমাজ সংস্কৃতি, কলিকাতা: প্রত্নেতিহাস পাবলিশার্স।

1. Course Number: ACSS 234

Course Title: History-Four: History of Education

2. Credit Hours: 4

3. Course Description

This Course is designed to provide the students with knowledge and understanding of the historical development of education in Indian Sub-Continent. Focus has been put on the trends of development of modern education in the sub-continent especially in Bangladesh. Attempts have also been made to bring into focus the major endeavors and factors that contributed to change in education sectors in different periods.

4. Course Objectives

The objectives are to help learners to

- a. acquaint with historical development of education in the subcontinent.
- b. understand the trends in the development of modern education in Bangladesh.
- c. identify the major endeavors and factors that contributed to tile major change in education.
- d. develop attitudes and ability of analyzing critical aspects of education system of Bangladesh in the context of its history.

5. Course Contents

Content Hours

Unit 1: Education in Ancient Period

2

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the nature and characteristics of education in the Vedic, Aryan and Buddhist period

Content

- Education in the Vedic Age
- Education in the Aryan Period
- Buddhist Education System

Unit 2: Education System in the Medieval Period

2

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the education system in the Sultani and Mughal period

Content

- Education in the Sultani Period
- Education in the Mughal Period

Unit 3: Education in the British East India Company Period

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the perspectives of introducing western education in Bengal
- b. discuss the major acts and achievements of education in Bengal during the company rule

Content

- The Missionaries and their attitudes toward Western Education and Indigenous Education
- Educational Activities of the East India Company During 1600 to 1765
- Educational Policy of the East India Company between 1765 and 1813
- The Charter Act of 1813
- The Educational Works of the Serampore Thio and others in Bengal (1758-1813)
- Official Experiments in Education (1813-1853)
- Official Educational Policies in Indian Sub-Continent
- Official Education Enterprise in the Presidency of Bengal between 1813 and 1853
- Missionary Education Enterprise (1813-53)
- Private Enterprise in Education (1813-53)
- Wood's Education Despatch of 1854
- The University Act of 1857

Unit 4: The Role of British Government in Education Since 1858 to 1919

7

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the role of the British Government in education and major documents since 1858 to 1919

Content

- Despatch of Lord Ellenborough, 1858
- Lord Stanley's Despatch of 1859
- Indian Education Commission of 1882
- Educational Reforms of Lord Curzon:
 - The Indian Universities Commission (1902)
 - The Indian Education Act, 1904
- Government Resolution on Educational Policy (1913)
- The Calcutta University Commission (1917-1919)

Unit 5: Education Under Diarchy (1919-1947)

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the major steps in education under diarchy during 1919-1947

Content

- Mont. Ford Reformation (1919) and Education
- Hartog Committee Report (1929)
- Wood-Abbot Report (1937)
- Wardha Scheme (1937)
- Sargent's Scheme (1944)

Unit 6: National Education Movements in the British Period

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the national education movements in the British period
- b. assess the results of movements

Content

- Growth of National Consciousness in Education
- Development of National Consciousness in Education
- A New outlook and New wave in National Education Movement under Diarchy
- Results of Movement

Unit 7: Major Education Commission / Committee reports in Pakistani Period

2

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss major recommendations of different Education Committee/Commission reports

Content

- Report of the East Bengal Educational System Reconstruction Committee, 1952
- Report of the Educational Reforms Commission, East Pakistan, 1957
- Report of the Commission on National Education, 1960
- National Curriculum and Syllabus Committee Report, 1960

Unit 8: Major Education Commission / Committee reports in Bangladesh

2

Learning Outcomes

At the end of this unit learners will be able to

- a. review education systems, management programs and challenges in education in Bangladesh based on major Education Committee / Commission reports

Content

- Bangladesh Education Commission Report, 1974
- Bangladesh National Curriculum and Syllabus Committee 1977
- Bangladesh National Education Commission Report 1988
- Competency Based Curriculum, 1991
- Curriculum and Syllabus Report, 1995
- National Education Policy, 2010

6. Instructional Strategies

- a. Lecture/Discussion
- b. Power point slides presentation
- c. Reading
- d. Library work and students' participation in the classes

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

A.K Jalaluddin and A. Mustaque R. Chowdhury (editors) (1997), *Getting Started: Universalizing Quality Primary Education in Bangladesh*, The University Press Limited.
Banerjee, A. C. (1977). *Constitutional History Of India 1919-1977*. Atlantic Publishers & Distri.

- Chatterji, J. (2002). *Bengal divided: Hindu communalism and partition, 1932-1947* (No. 57). Cambridge University Press.
- Croft, A. (1988). *Review of Education in India in 1886 with special reference to the Report of the Education Commission*. Superintendent, of Government Printing.
- Jafri, S. Z. H. (2012). Education and transmission of knowledge in medieval India. *Intellectual Discourse*, 20 (1).79-102.
- Jayapalan, N. (2005). *History of education in India*. Atlantic Publishers & Dist.
- Kumar, M. (2012). Study of past and present education system in India. *International Journal of Physical and Social Sciences*, 2(8), 85-91.
- Marsh, B. D. (2009). *Ramparts of empire: India's north-west frontier and British imperialism, 1919-1947*. The University of Texas at Austin.
- Mazharul Haque and Others (1970), *The Education in East Pakistan Research Project*, Research Services Centre, Institute of Education and Research, University of Dhaka. Dhaka.
- Naik, J. P. (1982). *The education commission and after*. APH Publishing.
- Nurullah, S., & Naik, P. J. (1943). *History of education in India during the British period*. Macmillan.
- Sharma, S. R. (1990). *Education in India*. Anmol Publications.
- Syed Nurullah and Naik (1964), *A Students' History of Education in India*, Macmillan & Co. Ltd.
- Whitehead, C. (2004). The Christian missions and the origins of the Indian Education Commission 1882-83. *Education Research and Perspectives*, 31(2), 120-136.
- অরুণ ঘোষ (১৯৮৮), *শিক্ষার ভাবধারা পদ্ধতি ও সমস্যার ইতিহাস*, কলিকাতা: এডুকেশনাল এন্টারপ্রাইজার্স।
- আবদুল্লাহ আল-মুতী শরফুদ্দিন (১৯৬৬), *আমাদের শিক্ষা কোন পথে*, ঢাকা: ইউনিভার্সিটি প্রেস লিমিটেড।
- আ. খা. আবদুল মান্নান ও অন্যান্য (১৯৯৬), *শিক্ষার ইতিহাস*, খান বাহাদুর আহছানউল্লা টিচার্স ট্রেনিং কলেজ, ঢাকা: আহছানিয়া মিশন, ঢাকা।
- জাতীয় প্রাথমিক শিক্ষা বিষয়ক কমিটি (১৯৯৭) প্রতিবেদন, প্রাথমিক ও গণশিক্ষা বিভাগ, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- শিক্ষা মন্ত্রণালয় (২০১০), *জাতীয় শিক্ষানীতি-২০১০*, ঢাকা: শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার শিক্ষা মন্ত্রণালয়।
- মো: ইলিয়াস আলী (১৯৯৯), *যুগে যুগে শিক্ষা কমিশন ও শিক্ষার উত্তরণ*, ঢাকা: জাগরনী প্রকাশনী।
- নিতাই দাস (২০০০), *বাংলাদেশে সমাজ রাজনীতি ও শিক্ষা*, ঢাকা: মীরা প্রকাশন।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৭৪), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৭৭), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৮৮), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড (১৯৯৫), *বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি কমিটি রিপোর্ট*, ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৯৭), *বাংলাদেশ জাতীয় শিক্ষানীতি প্রণয়ন কমিটি রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড (১৯৭৭), *বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি কমিটি রিপোর্ট*, ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।
- মোহাম্মদ আজহার আলী (১৯৮৬), *শিক্ষার সংক্ষিপ্ত ইতিহাস*, ঢাকা: বাংলা একাডেমী।
- মোহাম্মদ মোমিন উল্লাহ (১৯৭৩), *শিক্ষার ইতিহাস*, নোয়াখালী: হেলাল লাইব্রেরী।
- মোহাম্মদ আলী জিন্নাহ (২০০৩), *বাংলাদেশে নিম্ন মাধ্যমিক শিক্ষান্তরে (ষষ্ঠ-অষ্টম শ্রেণী) সামাজিক বিজ্ঞান শিক্ষাক্রমের গতিধারা নিরূপণ*, অপ্রকাশিত এম.এড থিসিস, শিক্ষা ও গবেষণা ইনস্টিটিউট, ঢাকা বিশ্ববিদ্যালয়, ঢাকা।
- রনজিৎ ঘোষ (১৯৮৬), *শিক্ষাদর্শ পদ্ধতি ও সমস্যার ইতিহাস*, কলিকাতা: সোমা বুক এজেন্সী।
- শ্রী গৌরদাস হালদার, (১৯৮৬), *শিক্ষণ প্রসঙ্গে শিক্ষার ইতিহাস*, কলিকাতা: ব্যানার্জী পাবলিশার্স।
- শিক্ষাক্রম ও পাঠ্যসূচি রিপোর্ট (১৯৯৫), জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড, ঢাকা।

1. Course Number: ACSS 241

Course Title: Geography-One: Physical Geography

2. Credit Hours: 4

3. Course Description

Geography is the scientific study of places and the interrelationship between people and their environments. This course is designed to introduce students to the essentials of physical geography. It deals with the study of natural physical environment of human kind. The course is expected to help students to understand theory and concept of physical geography through theoretical and practical knowledge.

4. Course Objectives

The objectives are to help learners to

- a. understand the definition, scope and importance of Geography.
- b. express knowledge of the major physical features of the Earth.
- c. understand the essential features of Physical Geography.
- d. explain with the processes that cause earthquakes and volcanism.
- e. understand some aspects and elements of climate and weather.
- f. develop map reading and drawing skills.
- g. develop representation skills of physical and climatic data, and;
- h. acquaint with use of GIS.

5. Course Contents

Contact Hours
3

Unit 1: Geography and its major divisions and importance

Learning Outcomes

At the end of this unit learners will be able to

- a. define geography and its different branches
- b. explain importance of geography learning

Content

- Definition, scope and its major divisions of Geography
- Importance of Geographical knowledge in human life
- Determination of Physical Geography

Unit 2: Solar System, Geographic grid, Rotation and Revolution of the Earth

5

Learning Outcomes

At the end of this unit learners will be able to

- a. define key terms related with Solar system and can differentiate stars, moons and planets
- b. demonstrate an understanding of the solar system and shape of the earth
- c. demonstrate and define geographic grid and identify equator and different latitudes and longitudes on the globe and maps
- d. calculate time difference from one place to another place
- e. explain cause and effects of rotation and revolution of the Earth

Content

- Solar System
- Earth as a Planet, its shape, size and structure
- Geographic grid: Latitudes and longitudes, importance of latitude and longitude
- International Date Line; time differences on the earth
- Cause and effects of rotation and revolution of the Earth

Unit 3: The earth crust, rocks, weathering, erosion, transportation and deposition

5

Learning Outcomes

At the end of this unit learners will be able to

- a. define what the Earth's crust is and what it is made of
- b. describe inner part of the earth
- c. define and classify rocks and minerals
- d. define key terms weathering, erosion, transportation and deposition
- e. describe and explain how weathering, erosion, transportation and deposition change the landforms

Content

- The earth crust, its composition (sial/sima); Mantle; and Core
- Rocks and their classification: Igneous, sedimentary and metamorphic rocks
- Weathering and its work on land surface
- Erosion and its work on land surface
- Transportation & deposition and its work on land surface

Unit 4: Earthquake and Volcanism

3

Learning Outcomes

At the end of this unit learners will be able to

- a. define and distinguish exogenic & endogenic process
- b. describe and explain causes and effects of earthquake
- c. describe and explain causes and effects of volcanism
- d. describe what should people do during earthquake
- e. show earthquake and volcanic region on the world map

Content

- Exogenic process (weathering, Erosion, Mass wasting, Deposition)
- Endogenic (Diastrophism, Volcanism, Earth Quakes)
- Causes and effects of earthquake & volcanism

Unit 5: Changing agents of Landforms: (Rivers, winds, glaciers, waves)

5

Learning Outcomes

At the end of this unit learners will be able to

- a. identify changing agents of the earth
- b. describe different stages of a river system
- c. describe and demonstrate how do rivers affect the land they flow through (Work of Rivers Erosion, Transportation and Deposition)
- d. describe Landforms made by Winds
- e. recognize wind as an agent of Landform change in the desert climate
- f. describe glaciers and waves as an agent of Landform change

Content

- Different stages of a river; River Erosion, Transportation and Deposition
- Wind as an agent of Landform change in the Desert Climate
- Glaciers and its Erosion, Transportation and Deposition
- Waves as an agent of Landform change

Unit 6: The Ocean, tides and ocean currents.

4

Learning Outcomes

At the end of this unit learners will be able to

- a.describe and compare the major characteristics of oceans
- b.explain and demonstrate causes and effects of tides
- c.describe and show the major ocean current in the world map

Content

- Five oceans and their characteristics
- Causes and effects of Tides
- Major ocean currents of the earth

Unit 7: Climatology: Major Climatic elements of the world

7

Learning Outcomes

At the end of this unit learners will be able to

- a.define and compare weather & climate
- b.describe structure of atmosphere of the earth
- c.describe and identify major temperature belt in the world
- d.describe and draw air pressure belts
- e.draw and explain major wind system of earth
- f. define key terms: related with climate
- g.identify different climatic types and show their distribution in the world map; and
- h.describe the impact of weather on human activities

Content

- Structure of atmosphere
- Weather, climate
- Temperature, air pressure belts, winds planetary system
- Humidity, precipitation
- Climatic types & their distribution

Unit 8: Cartography (practical part)

8

Learning outcomes

At the end of this unit learners will be able to

- a.define cartography and map
- b.read different types of map
- c.prepare layout maps using cartographic techniques
- d.describe and draw different kinds of scale used in maps
- e.draw and describe different relief showing methods of topographical and weather maps
- f. identify and use different geographical instruments; and
- g. define GIS and its use

Content

- Map Scales: linear and diagonal, enlargement and reduction of maps
- Layout maps using cartographic techniques like Line Graph, Bar Graph
- Methods of showing relief, drawing of profile, interpretation of topographical maps
- Study and interpretation of wealthier maps
- Drawing charts and graphs with the supplied data related to climatology
- Introduction to geographical survey instruments and GIS and its use

6. Instructional Strategies

- a. Lecture
- b. Small group discussion
- c. Question-answer
- d. Problem solving
- e. Video presentation
- f. Observation
- g. Demonstration

7. Assignment

- a. Students will be given specific assignments/ project/ practical works or presentation topic by the instructor which they will be required to submit/performs on due dates.

8. Assessment

- | | |
|--|------------|
| a. One In-course Examination | 15×1 = 15 |
| b. Assignment/Project/ Practical work sheets | 05×1 = 05 |
| c. Semester Final Examination (MCQ + Essay) | 20 + 40=60 |
| d. Practical (Exam, Viva or Presentation) | 15+5 = 20 |

9. Recommended Books, Journals and Reports

- Kapoor A. N. and Das Gupta. (2013), *Principles of Physical Geography*. India Chand Publishing.
- McKnight, T.L.(2016), *Physical Geography: A Landscape Appreciation*. Pearson.
- P Lake, (1955), *Physical Geography*, University press.
- Ritter, Michael E. (2003), *The Physical Environment: an Introduction to Physical Geography*. Michael Ritter.
- Singh R.L.K. and P.K. Dutt. (1968), *Elements of Practical Geography*. Allahabad, India. Student's friends.
- Strahler, Arthur N., (1965), *Introduction to Physical Geography*. John Wiley & Sons, Inc., Online available: <https://onlinelibrary.wiley.com/doi/abs/10.1002/sce.3730510498>
- Strahler, Alan H and Arthur Newell Strahler, (2013), *Introducing Physical Geography*, John Wiley & Sons, Inc.
- Trewartha, T. Arthur, H. Robinson and Edwin H. Hammond (1967), *Elements of Physical Geography*. McGraw-Hill.
- Trewartha, G. T, (1954), *An Introduction to Climate*. McGraw-Hill.
- রেজওয়ান হোসেন ভূইয়া ও মো: খাইরুল এনাম (২০০৬), *প্রাকৃতিক ভূগোল*, ঢাকা: শিক্ষাকোষ প্রকাশনা।
- মোয়াজ্জেম হোসেন চৌধুরী (২০১৮), *প্রাকৃতিক ভূগোল ও পরিবেশ*, বাংলাদেশ বুক করপোরেশন লি:।

1. Course Number: ACSS 242

Course Title: Geography-Two: Human Geography

2. Credit Hours: 4

3. Course Description

Human geography deals with the interrelationships between people, place, and environment, and how these vary spatially and temporally across and between locations. It is a wide-ranging discipline that draws together many of the strands important for understanding the world today. It examines human societies and how they develop, their culture, economy and politics, all within the context of their environment. The course is designed to provide students with the knowledge and understanding of economic and cultural aspects of human activities in regional & spatial perspectives.

4. Course Objectives

The objectives are to help learners to

- a. understand the meaning, nature, scope and methods of study of economic and human geography.
- b. understand human's economic activities.
- c. understand population and their settlement pattern.
- d. understand relation of man, environment and society.
- e. develop practical skills in preparation of charts, graphs, maps, showing the distribution of different types of economic activities.

5. Course Contents

Contact Hours

Unit 1: Human Geography and Man, Environment relationships

4

Learning Outcomes

At the end of this unit learners will be able to

- a. define what is human geography
- b. explain the scope of human geography
- c. define the terms and concepts of Man, environment, society, possibilism and determinism

Content

- Definition, scope and methods of Human Geography
- Man–Environment–Society relationships
- Concept of Determinism and Possibilism

Unit 2: Economic activities

3

Learning Outcomes

At the end of this unit learners will be able to

- a. define economic activities
- b. identify and describe different types of economic activities
- c. cite the examples of different types of economic activities

Content

- Definition of Economic activities
- Classification of economic activities (primary, secondary, tertiary and quaternary)
- Identify different kind of economic activities

Unit 3: Resources (primary, secondary and tertiary) and study of selected resources

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain what is natural resources, types of natural resources
- b. explain and identify the role and importance of natural resources for economic development
- c. discuss about some selected resources and minerals and their importance
- d. define and discuss role of forestry and fishing in economic development
- e. describe the production procedures of rice, wheat including of some other agricultural crops
- f. explain the development of trading patterns transport and communication in relation to human activities

Content

- World distribution of Forest
- Types and importance of natural resources
- World distribution and production of coal, iron ore, petroleum
- Crops: Rice, Wheat
- Cottage industries
- World trading patterns, transport and communication

Unit 4: Population: world distribution patterns and characteristics

7

Learning Outcomes

At the end of this unit learners will be able to

- a. define key words related with population geography
- b. explain and describe demographic transition model
- c. describe population pattern and distribution of world population
- d. explain the characterizes of population distribution
- e. draw and explain different kinds of population maps

Content

- Define and describe: population, population distribution, birth rate, death rate, density of population
- Demographic transition model and changing nature of population
- World population pattern and distribution of population

Unit 5: Settlements and Migration: Types and characteristics

4

Learning Outcomes:

At the end of this unit learners will be able to

- a. define and describe key word related with settlement and migration
- b. explain different types of settlement pattern
- c. describe the historical developments of settlement
- d. explain causes and effect of in-migration and out-migration

Content

- Definition of different related words
- Types and patterns of population settlement
- Types and causes and effect of in-migration and out-migration

Unit 6: Races of mankind and ethnic groups, culture and its types

4

Learning Outcomes

At the end of this unit learners will be able to

- a. define race of mankind and ethnic groups
- b. discuss about culture and its types

Content

- Races of mankind and ethnic groups
- Culture and its types

Unit 7: Practical

10

Learning Outcomes

At the end of this unit learners will be able to

- a. draw and explain maps and charts to show population data
- b. reading and exercise of the maps showing the distribution of different types of economic commodities, population distribution, density and their settlement
- c. explain and draw population pyramid
- d. explain and draw charts and graph on the basis of population and other economic data

Content

- Pie chart, Choropleth Map, Isopleth Map, Dot Map
- Population pyramid
- Maps of population distribution and density of population
- Maps on distribution of agricultural and industrial products

6. Instructional Strategies

- a. Lecture and question answer
- b. Discussion
- c. Problem solving
- d. Demonstration
- e. Video presentation
- f. Map drawing
- g. Students Presentation

7. Assignment

Students will be given specific assignments/ project/ practical works or presentation topic by the instructor which they will be required to submit/performs on due dates

8. Assessment

- | | |
|--|----------|
| a. One In-course Examination | 15×1=15 |
| b. Assignment/Project/ Practical work sheets | 05×1=05 |
| c. Semester Final Examination (MCQ + Essay) | 20+40=60 |
| d. Practical (Exam, Viva or Presentation) | 15+5=20 |

9. Recommended Books, Journals and Reports

Alexander, J.W. (1987) *Economic Geography*. Prentice Hall.

Rashid, Harun-Ur (1981). *An Economic Geography of Bangladesh*. UPL.

Sheikh M. A. H, Bhuiyan R. H & Islam M. S. (2005). *Economic Geography* Bangladesh Open University.

Thoman, S. Richard and Peter B. Corbin (1974). *The Geography of Economic Activity*. McGraw-Hill Book Company.

আবুতাহা (১৯৯৩), *মানবিক ভূগোল*, রাজশাহী বিশ্ববিদ্যালয়:পাঠ্যপুস্তকসম্পাদনা বোর্ড।

আব্দুল বাকী (২০১২), *সাংস্কৃতিক ভূগোল*, ঢাকা: গ্লোব লাইব্রেরী।

মোহাম্মদ আরিফুর রহমান (২০১৪), *অর্থনৈতিক ভূগোল*, ঢাকা: স্বজন প্রকাশনী।

মোয়াজ্জেম হোসেন চৌধুরী (২০১৮), *অর্থনৈতিক ভূগোল*, বাংলাদেশ বুক করপোরেশন লি:।

সুধাংশু শেখর ভট্টাচার্য (২০০৫), *অর্থনৈতিক ভূগোল*, কলকাতা: ইন্ডিয়ান প্রগ্রেসিভ পাবলিশিং কো: লি:।

1. Course Number: ACSS 243

Course Title: Geography-Three: Geography of Bangladesh

2. Credit Hours: 4

3. Course Description

This course will introduce an idea and concept of regional geography with primary focus on Bangladesh. It has been designed to provide knowledge and understanding of physical and economic geography of Bangladesh. The major characteristics and features of Bangladesh will be described in this study with inclusion of maps, charts and graphs.

4. Course Objectives

The objectives are to help learners to

- a. understand the concept of regional geography.
- b. acquire knowledge and understanding of the physical and economic geography of Bangladesh from a regional point of view.
- c. be involved in discussion and analysis of the major issues related to culture, economy and society of the people of Bangladesh and identify their possible solutions.
- d. develop skills in preparing maps, charts, graphs with the help of supplied data related to the subject matter.

5. Course Contents

Contact Hours

Unit 1: Regional Geography: The concept of Regional Geography

2

Learning Outcomes

At the end of this unit learners will be able to

- a. describe definition of Region
- b. classify and describe different types of regions

Content

- Definition of region, regional approach and methods
- Classification of region
- Advantages & disadvantages of regional methods

Unit 2: The Geography of Bangladesh

9

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the location and boundry of Bangladesh
- b. describe the physiographic regions and soil patterns of Bangladesh
- c. describe the major river courses of Bangladesh

Content

- Location and boundary
- Physiography of Bangladesh
- Rivers of Bangladesh: the Padma, Meghna, Jamuna, Brahamaputra, Karnaphuli, Surma, Teesta, Buriganga, Sitalakha etc.
- Soil patternsof Bangladesh

Unit 3: Climate, Vegetation, Agriculture and major industries of Bangladesh **10**

Learning Outcomes

At the end of this unit learners will be able to

- a. describe and explain the climate of Bangladesh
- b. explain climate change impacts, mitigation and adaptation process of Bangladesh
- c. describe the vegetation and major agricultural product of Bangladesh

Content

- Climate of Bangladesh and Climate Change Impacts, Mitigation and Adaptation
- Vegetation and forestry of Bangladesh
- Agriculture, Animal husbandry and fisheries of Bangladesh

Unit 4: Population characteristics and major industries of Bangladesh **6**

Learning Outcomes

At the end of this unit learners will be able to

- a. describe and explain the population distribution pattern and density of population
- b. describe the communication & transports system of Bangladesh
- c. describe about trades, export & import for the development of the country
- d. describe the major industries and their role in Bangladesh economy

Content

- Population distribution, structure, density
- Population growth, related problems
- Selected industries (like: garments, jute, textile etc.)
- Power and mineral resources
- Communication and Transport
- Trade: Export and Import

Unit 5: Culture, economic and society in Bangladesh and related problems **3**

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the cultural differences in Bangladesh
- b. describe the economy and society of Bangladesh
- c. explain the problems and issues related with economy and society of Bangladesh
- d. describe the environment of Bangladesh

Content

- The people of Bangladesh, their ethnic groups
- Social, cultural life in villages and towns in Bangladesh
- Changing nature of environment and responsibilities of people on environment
- Environmental problems and Natural hazards

Unit 6: Practical **10**

Learning Outcomes

At the end of this unit learners will be able to

- a. read related maps
- b. draw the necessary maps of Bangladesh showing the distribution of different geographical information

Content

- Map reading and preparing maps of Bangladesh showing the distribution of different Geographical information

6. Instructional Strategies

- a. Lecture
- b. Group discussion
- c. Problem solving
- d. Video presentation
- e. Practical work, drawing maps
- f. Student presentation
- g. Field Trip

7. Assignment

Students will be given specific assignments/ project/ practical works or presentation topic by the instructor which they will be required to submit/performs on due dates

8. Assessment

- | | |
|---|----------|
| a. One In-course Examination | 15×1=15 |
| b. Assignment/Project/Practical work sheets | 05× 1=05 |
| c. Semester Final Examination (MCQ + Essay) | 20+40=60 |
| d. Practical (Exam, Viva or Presentation) | 15+05=20 |

9. Recommended Books, Journals and Reports

Haroun er Rashid (1981). *An Economic Geography of Bangladesh*. University Press Limited.

H. Brammer (2012). *The Physical Geography of Bangladesh*. UPL.

Islam Md. Nazrul and Amstel van André (2018) (ed.). *Bangladesh I: Climate Change Impacts, Mitigation and Adaptation in Developing Countries*. Springer, Cham.
<https://link.springer.com/book/10.1007%2F978-3-319-26357-1#toc>.

Jones G., Mahbub A. Q. M. & Haq M. I. (2016). *Urbanization and Migration in Bangladesh*. UNFPA.

Khatun H., Ahmad N., Mahbub A. Q. M. & Kabir H. (Eds.) (2018). *Environment and Sustainable Development in Bangladesh Geographical Perspective*. Department of Geography and Environment, University of Dhaka.

Mahbub A. Q. M. (1994). *Labour Migration from Bangladesh to Asian Countrie*. United Nations Centre for Regional Development.

Bangladesh in Maps, 1985, Dhaka: University Press Limited.

Bangladesh Bureau of Statistics (2021). *Statistical Yearbook of Bangladesh*. Dhaka: BBS, Ministry of Planning.

এম. এ রব. (২০০৭), সার্ক ভূগোল: দক্ষিণ এশিয়ার ভূগোল ও পরিবেশ, ঢাকা: পারফেক্ট পাবলিকেশনস।

এম. এ রব. (২০০২), বাংলাদেশের প্রাকৃতিক গ্যাস: বানিজ্য, ব্যবহার এবং সংরক্ষণ, ঢাকা: আই.আর.ডি।

আব্দুল বাকী (২০১০), ভূবনকোষ: ভৌগলিক অভিধান, ঢাকা: গ্লোব লাইব্রেরী।

অর্থ মন্ত্রণালয় (২০২০), বাংলাদেশ অর্থনৈতিক সমীক্ষা, ঢাকা: অর্থ মন্ত্রণালয়।

সিরাজুল ইসলাম ও শাহজাহান মিয়া (সম্পাদিত) (২০০৩), বাংলাপিডিয়া, ঢাকা: এশিয়াটিক সোসাইটি।

এ. মাহবুব ও অন্যান্য (১৯৮৫), বাংলাদেশ, প্রাকৃতিক ভূগোল ও পরিবেশ, ঢাকা: বাংলা একাডেমী।

এ. এম রহিম, এস. এম. ইসলাম ও কে. এম. উদ্দিন (২০০৭), বাংলাদেশ স্টাডিজ, ঢাকা: বাংলাদেশ উন্মুক্ত বিশ্ববিদ্যালয়।

1. Course Number: ACSS 244

Course Title: Geography-Four: Regional Geography: World's Continents

2. Credit Hours: 4

3. Course Description

Regional geography is a branch of geography that studies the world's regions. A region itself is defined as a part of the Earth's surface with one or many similar characteristics that make it unique from other areas. This course is focused on the seven continents and their people. It will help the students to recognize and describe the characteristics of the major physical features of different continents. Attempts have also been made in this course to relate human activities to earth's physical environment and with significant aspect of man's cultural environment. This course will greatly assist students to understand, evaluate and reach decisions about current world problems.

4. Course Objectives

The objectives are help learners to

- a. know about the diversity of world geography.
- b. recognize and identify how physical features differ from place to place on the globe.
- c. know and describe key geographical features, climate, vegetation, people, cultural and economic characteristics of the seven continents of the world.
- d. locate major geographical features of earth on continents and world maps.

5. Course Contents

Contact Hours

Unit 1: Asia

7

Learning Outcomes

At the end of this unit learners will be able to

- a. locate Asia in the world map and describe its position and its latitudes and longitudes
- b. list and describe the mountains, plateaus, bodies of water, deserts, and plains of Asia
- c. locate and describe the key geographical features of Asia on a map
- d. prepare and use of maps, charts and graphs
- e. identify and describe physical; climatic; vegetation; cultural and economic characteristics of the region

Content: Asia

- Location and Physical setting and landforms
- Climatic condition
- Vegetation distribution
- Economic characteristics of the region
- Resources and land use
- Population and culture of Asia region

Unit 2: Europe

4

Learning Outcomes

At the end of this unit learners will be able to

- a. locate Europe in the world map and describe its position and its latitudes and longitudes
- b. list and describe the mountains, plateaus, rivers, deserts, and plains of Europe
- c. identify and discuss climate; vegetation; culture and economy of the region
- d. locate and describe the key geographical features of Europe on a map
- e. prepare maps

Content: Europe

- Location and Physical setting
- Physical; climatic; vegetation; cultural and economic characteristics of the region
- Climate change in Europe
- Resources and land use, agriculture
- Population of Europe

Unit 3: Africa**5****Learning Outcomes**

At the end of this unit learners will be able to

- locate Africa in the world map and describe its position and its boundaries
- list and describe the mountains, plateaus, rivers, deserts, and plains of Africa
- locate and describe the key geographical features of Africa on a map
- prepare maps
- identify and discuss climate; vegetation; culture and economy of the region

Content: Africa

- Location and boundaries
- Physical; climatic; vegetation; cultural and economic characteristics of the region
- Resources, population and culture of Africa

Unit 4: North America**5****Learning Outcomes:**

At the end of this unit learners will be able to

- locate North America in the world map and describe its position and its latitudes and longitudes
- list and describe the mountains, plateaus, rivers, deserts, and plains of North America
- locate and describe the key geographical features of North America on a map
- prepare maps
- able to identify and discuss physical; climatic; vegetation; cultural and economic characteristics of the region

Content: North America

- Regional characteristic, contrast with neighboring region, location and boundaries
- Physical; climatic; vegetation; cultural and economic characteristics of the region
- Resources, Population and culture of North America region

Unit 5: South America**4****Learning Outcomes**

At the end of this unit learners will be able to

- locate South America in the world map and describe its position and its latitudes and longitudes
- list and describe the mountains, plateaus, rivers, deserts, and plains of South America
- locate and describe the key geographical features of South America on a map
- prepare maps
- able to identify and discuss physical; climatic; vegetation; cultural and economic characteristics of the region

Content: South America

- Regional characteristic, contrast with neighboring region, location and boundaries
- Physical; climatic; vegetation; cultural and economic characteristics of the region
- Resources, Population and culture of South America region

Unit 6: Australia**3****Learning Outcomes**

At the end of this unit learners will be able to

- a. locate Australia in the world map and describe its position and its latitudes and longitudes
- b. list and describe the mountains, plateaus, rivers, deserts, and plains of Australia
- c. locate and describe the key geographical features of Australia on a map
- d. prepare maps
- e. able to identify and discuss physical; climatic; vegetation; cultural and economic characteristics of the region

Content: Australia

- Regional characteristic, contrast with neighboring region, location and boundaries
- Physical; climatic; vegetation of Australia
- Resources, Population and culture of Australian region

Unit 7: Antarctica**1****Learning Outcomes:**

- a. locate Antarctica in the world map and describe its position and its latitudes and longitudes
- b. discuss the characteristics of Antarctica

Content: Antarctica

- Location
- Physical setting and regional characteristics of Antarctica

Unit 8: Practical**11****Learning Outcomes**

At the end of this unit learners will be able to

- a. read world or continent's geographic features related maps
- b. draw the necessary maps of continents showing the distribution of different geographical information

Content

- Map reading and exercise and
- Preparing maps world maps and continents maps by showing the distribution of different Geographical information
- Preparing chart, graph and interpret, compare and analyze

6. Instructional Strategies

- Lecture
- Group Discussion
- Problem solving
- Video presentation
- Showing Maps
- Practical work, and Map drawing
- Student's presentation

7. Assignment

Students will be given specific assignments/ project/ practical works or presentation topic by the instructor which they will be required to submit/performs on due dates

8. Assessment

- | | |
|--|--------------------|
| a. One In-course Examination | $15 \times 1 = 15$ |
| b. Assignment/Project/ Practical work sheets | $05 \times 1 = 05$ |
| c. Semester Final Examination (MCQ + Essay) | $20+40=60$ |
| d. Practical (Exam, Viva or Presentation) | $15+05=20$ |

9. Recommended Books, Journals and Reports

Jasper H Stembridge (2002). *The world*. Oxford University Press.

Islam Md. Nazrul and Amstel van André (2018) (ed.). *Bangladesh I: Climate Change Impacts, Mitigation and Adaptation in Developing Countries*. Springer, Cham.
<https://link.springer.com/book/10.1007%2F978-3-319-26357-1#toc>.

Wil Mara, (2005). *The Seven Continents*. Rookie Read.

এম. এ রব. (২০০৭), সার্কভূগোল: দক্ষিণ এশিয়ার ভূগোল ও পরিবেশ, ঢাকা: পারফেক্ট পাবলিকেশনস।

1. Course Number: ACSS 251

Course Title: Economics-One: Fundamentals of Micro and Macro Economics

2. Credit Hours: 4

3. Course Description

The course covers the basic concepts of Micro and Macro Economics. Main focus of the course is to provide an introduction to the economic principles behind the determination of price based on the theory of demand, supply and production functions and on how equilibrium price and quantity are reached in selected markets. Macroeconomics studies the behaviour of the main aggregates of the economy, analysis techniques; models that help explain how the economy works.

4 Course Objectives

The objectives are to help learners to

- a. gain knowledge on various concepts of both micro and macro Economics.
- b. familiarize with various definitions of Economics and their interrelationships with other subjects of Social Science including Education.
- c. understand the concepts of demand and supply, and laws and factors governing demand and supply.
- d. conceptualize how factors of production work, and how prices are determined.
- e. acquaint with different classifications of market.
- f. gain knowledge about the concepts and inter relationships among National Income, Gross Domestic Product, Gross National Product, Net National Product, Saving, Investments, Employment and Unemployment and methods of computing national income.

5. Course Contents

Contact Hours

Unit 1: Fundamental Concepts of Micro and Macro Economics

8

Learning Outcomes

At the end of this unit learners will be able to

- a. define basic concepts of micro and macro Economics
- b. explain the relationship between micro and macro Economics, and fundamental quantitative relationship
- c. differentiate among alternative economic systems

Content

- Distinction between micro and macro Economics
- Few basic economic concepts of micro and macro Economics : demand, supply, capital, cost, land, labour, organization, income, profits, saving, consumption, investment, employment and output
- Alternative economic systems-Capitalism, Socialism and Islamic Economics

Unit 2: Supply and Demand

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concepts of supply and demand and the determinants
- b. draw diagrams of supply and demand and explain those appropriately

Content

- Supply and Demand: Concepts of supply and demand and the determinants
- Market equilibrium and shifts of market equilibrium

- Consumer's and producer's surplus
- Concepts and measurements of various elasticities of demand and supply

Unit 3: The Theory of Consumer Behavior and Indifference Curve Analysis

5

Learning Outcomes

At the end of this unit learners will be able to

- explain different concepts of utility, consumer demand and indifference curve
- draw curves/diagrams and interpret of law of diminishing marginal utility and indifference curve

Content

- Concept of utility
- Total and marginal utility, cardinal and ordinal utility
- Law of diminishing marginal utility, equilibrium marginal principle
- Indifference Curve Analysis: properties of indifference curve
- Consumers' equilibrium - income, substitution and price effect

Unit 4: Theory of Production and Cost and Revenue

10

Learning Outcomes

At the end of this unit learners will be able to

- identify factors of production
- explain theory of cost, different types of costs and revenue
- draw Iso-product and Iso-cost curves and producer's equilibrium
- draw short and long run cost curves and cost functions
- establish links between production and costs

Content

- The Theory of Production: Factors of production
- Returns to scale, production function
- ISO-Product and Iso-cost curves, producer's equilibrium
- Theory of cost and revenue: short run and long run cost function, explicit, implicit and opportunity costs
- Fixed and variable costs, total, average and marginal costs, envelope average cost curves
- The link between production and cost
- Accounting profit vs. economic profit, profit maximizing conditions

Unit 5: Market and Its Classification

8

Learning Outcomes

At the end of this unit learners will be able to

- describe the characteristics of different types of markets
- differentiate between classification of markets and show in a chart/organogram
- draw supply curve of a firm and industry and equilibrium in the short and long run

Content

- Perfect competition, Monopoly and Monopolistic Competition
- Equilibrium of a firm in the short and long run under perfect competition
- Derivation of supply curve of a firm and industry
- Monopoly equilibrium in the short run and long run. Price discrimination
- Monopolistic competition, Product differentiation and group equilibrium
- Oligopoly, Characteristics of oligopoly market Collusive and Non-Collusive Oligopoly

Unit 6: National Income Accounting

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe concepts of GDP, GNP, NNP
- b. identify methods of National Income Accounting and problems of computing National Income

Content

- National Income Accounting : GDP, GNP, NNP, Nominal and Real National Income
- Methods of National Income Accounting
- Problems of Computing National Income
- Usefulness of National Income Accounting

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Project work/Assignment
- d. Power Point Presentation

7. Assessment

- | | |
|---|----|
| a. Two In-course Examinations | 30 |
| b. Semester Final Examination | 60 |
| e. Assignments/ Power Point Presentations | 10 |

8. Recommended Books, Journals and Reports

- Benham, F. (1961). *Economics A General Introduction*. Sir Isaac Pitman.
- Bilas, R. A. (1971). *Microeconomic Theory*. McGraw-Hill.
- Braman, S. (2006). The micro-and macroeconomics of information. *Annual review of information science and technology*, 40(1), 3-52.
- Cachon, G., & Terwiesch, C. (2008). *Matching supply with demand*. McGraw-Hill Publishing.
- Castro, L., & Araujo, A. (2019). Marginal Utility & its Diminishing Methods. *International Journal of Tax Economics and Management*. 2(6), 35-47.
- Cobb, C. W., & Douglas, P. H. (1928). A theory of production. *The American Economic Review*, 18(1), 139-165.
- Devi, S., Nayak, M. M., & Patnaik, S. (2021). A Study on Decision Making by Estimating Preferences Using Utility Function and Indifference Curve. In *Intelligent and Cloud Computing* (pp. 373-386). Singapore.
- Dopfer, K. (Ed.). (2005). *The evolutionary foundations of economics*. Cambridge University Press.
- Dopfer, K., Foster, J., & Potts, J. (2004). Micro-meso-macro. *Journal of evolutionary economics*, 14(3), 263-279.
- Ferguson, C.E. (1972). *MICROECONOMIC THEORY*. Homewood, IL.
- Flaschel, P. (2010). *Topics in classical micro-and macroeconomics: elements of a critique of Neoricardian theory*. Springer Science & Business Media.
- Heikkilä, J. (2002). From supply to demand chain management: efficiency and customer satisfaction. *Journal of operations management*, 20(6), 747-767.
- Lipsy, R.G. (1963). *An Introduction to Positive Economics*. Weidenfeld and Nicolson.
- Nakamura, L. I. (2010). Intangible assets and national income accounting. *Review of Income and Wealth*, 56, 135-155.

- Rasmussen, S. (2012). *Production economics: the basic theory of production optimisation*. Springer Science & Business Media.
- Resende, M. (2012). Non-Collusive Oligopoly and Business Cycle: Some Further Evidence. *Economics Bulletin*, 32(1), 883-893.
- Salvatore, D. (2012). *Introduction to international economics*. Wiley.
- Samuelson, P. A. (1961). *Economics: An Introduction Analysis*. McGraw-Hill, Book Company, Inc.
- Samuelson, P. A. (1961). *Study Guide and Workbook to Accompany Samuelson: Economics*. McGraw-Hill.
- Sotelo, J. A. M. A., & Block, W. E. (2014). Indifference Curve Analysis: The Correct and the Incorrect. *Oeconomia Copernicana*, 5(4), 7-43.
- Speich, D. (2011). The use of global abstractions: national income accounting in the period of imperial decline. *Journal of Global History*, 6(1), 7-28.
- Stonier, A. W., & Hague, D. C. (1957). *A textbook of economic theory*. Longmans Green
- ড. নুর ইসলাম ও আবুল খায়ের (২০১৮-২০১৯), মৌলিক ব্যাস্টিক অর্থনীতি (পঞ্চম সংস্করণ), ঢাকা: দি ইউনাইটেড পাবলিশার্স।
- লুৎফুল হক ও মোস্তাফিজুর রহমান (১৯৯৮), আধুনিক অর্থনীতি, ঢাকা: বাংলাদেশ বুক কর্পোরেশন।
- মো: আজিজুর রহমান (১৯৯২), আধুনিক ব্যাস্টিক অর্থনীতি, ঢাকা: বাংলা একাডেমি।
- মো: মাসুম আলী ও মো: নুরুল হক, (১৯৯২), আধুনিক অর্থনীতি, ঢাকা।
- Relate Websites, reports and documents.

1. Course Number: ACSS 252

Course Title: Economics-Two: The Economy of Bangladesh

2. Credit Hours: 4

3. Course Description

This course is designed to introduce various aspects of economic development, stages of economic development, features of developed, developing and under developed countries and the socio-economic context of Bangladesh from different perspectives. The course will also familiarize the students with the recent issues of Bangladesh economy, trend of economic variables and business phenomenon, financing of national development programmes.

4. Course Objectives

The objectives are to help learners to

- a. understand the structure of the economy of a country.
- b. identify features of a developing economy and reasons for underdevelopment of the Bangladesh economy.
- c. acquire knowledge about the importance of natural, mineral and other resources in national development.
- d. analyze the problems of overpopulation and strategies to attack the problems.
- e. gain comprehensive knowledge of the economic activities such as agriculture, land tenure system and industry. Further to develop participants understanding about employment and unemployment situation obtaining in the country.
- f. identify various sources of finance and constraints in finance in the economy.
- g. help gain insight into the development planning process in Bangladesh.

5. Course Contents

Contact Hours

Unit 1: Economic Development

10

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concepts of economic growth and development
- b. identify characteristics of developed and less developed countries
- c. determine causes of economic backwardness
- d. compare and contrast the features of Bangladesh economy with other developing economies

Content

- Concept of economic development and development economics; Growth and development
- Characteristics of developed and less developed countries
- Causes of economic backwardness
- Determinants of development
- Features of Bangladesh Economy
- Reasons for present development status of Bangladesh economy
- GNP and per capita income, standard of living and mass poverty

Unit 2: Social and Economic Infrastructure

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe present status of education, health, transport, communication, power and energy sectors in Bangladesh
- b. make comparison of progress and growth in these sectors

Content

- Education
- Health
- Transport
- Communication
- Power and Energy Sectors in Bangladesh

Unit 3: Population and Economic Development

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain population growth trends, composition and its distribution
- b. evaluate the problems of over population and its impact on national development

Content

- Population-Growth, Composition and Distribution of Population
- Density and Trend of Population Growth
- Problems of Population in Bangladesh
- Population Policy, Population and Economic Development

Unit 4: Major Economic Activities: Agriculture and Industry

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe role of agriculture, need for modernization and its contribution to national economy
- b. identify different types of industries and their roles in economic development
- c. review Govt's industrial policy to determine its impact on industrial development

Content

- Agriculture: Role of Agriculture; Modernization of Agriculture
- Problems and Prospects of Agriculture in Bangladesh
- Land Reforms
- Agricultural Credit, Agricultural Marketing
- Industry: Role of Industry
- Large Vs Small and Cottage Industries, Private Vs Public Sector Privatization Policy
- Strategy for Industrial Development
- Industrial Development and Industrial Policy in Bangladesh

Unit 5: Development Finance and Planning

8

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different sources of finance-internal and external

- b. assess impact of foreign aid on economic development
- c. define concept and need of development planning
- d. identify problems of plan implementation and suggest remedies

Content

- Development Finance: Domestic Resource mobilization
- External resource
- Foreign aid versus foreign direct investment
- Foreign aid and economic development
- Concept of development planning, need of planning
- Overview of development plans
- Problems of implementing plans: Five year plans

Unit 6: Poverty Alleviation Policy

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe of concept of poverty Alteration and causes of poverty
- b. explain and assess the role of poverty alleviation policy: Local Government and NGOs

Content

- Concept of Poverty Alteration, social safety net, importance of poverty alleviation policy
- Causes of Poverty and Its Remedial Measures
- Human Resource Development and Measures taken by the Government for Human Resource Development
- Role of Local Government and NGOs

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Project work/Assignment
- d. Power Point Presentation

7. Assessment

- | | |
|---|----|
| a. Two In-course Examinations | 30 |
| b. Semester Final Examination (MCQ + Essay) | 60 |
| c. Assignments / Power Point Presentations | 10 |

8. Recommended Books, Journals and Reports

- Ali, S., Alam, K., Islam, S., & Hossain, M. (2015). An empirical analysis of population growth on economic development: The case study of Bangladesh. *International Journal of Economics, Finance and Management Sciences*, 3(3), 252-259.
- Bangladesh Bureau of Statistics. (2012). *Statistical Yearbook of Bangladesh-2011* (31st edition). Bangladesh Bureau of Statistics.
- Bangladesh Bureau of Statistics. (2020). *Statistical Yearbook Bangladesh 2019* (39th edition). Bangladesh Bureau of Statistics.
- Bangladesh Bureau of Statistics. (2021). *Statistical Yearbook Bangladesh 2020*(40th edition). Bangladesh Bureau of Statistics.

- Chowdhury, M., Hussain, M. D., Chung, S. O., Kabir, E., & Rahman, A. (2016). Agarwood manufacturing: a multidisciplinary opportunity for economy of Bangladesh-a review. *Agricultural Engineering International: CIGR Journal*, 18(3), 171-178.
- Finance Division, Ministry of Finance, Government of the People's Republic of Bangladesh. (2020). *BANGLADESH ECONOMIC REVIEW 2020*. Finance Division, Ministry of Finance, Government of the People's Republic of Bangladesh.
- General Economic Division, Bangladesh Planning Commission. (2015). *The Seventh Five Year Plan (2016-2020)*. General Economic Division, Bangladesh Planning Commission.
- Ingham, G. (1998). On the Under development of the 'Sociology of Money'. *Acta Sociologica*, 41(1), 3-18.
- Islam, M. K., Rahaman, M., & Ahmed, Z. (2018). Blue economy of Bangladesh: Opportunities and challenges for sustainable development. *Advances in Social Sciences Research Journal*, 5(8), 168-178.
- Islam, M. R., & Mia, A. (2007). The role of education for rural population transformation in Bangladesh. *International Journal of Work-Integrated Learning*, 8(1), 1-21.
- Khan, A. R. (2015). *The Economy of Bangladesh: A Quarter Century of Development*. Palgrave Macmillan.
- Ministry of Education, Government of the People's Republic of Bangladesh. (2010). *National Education Policy 2010*. Ministry of Education, Government of the People's Republic of Bangladesh.
- Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh. (2012). *Bangladesh Population Policy-2012*. Ministry of Health and Family Welfare, Government of the People's Republic of Bangladesh.
- Mottaleb, K. A., Kruseman, G., & Erenstein, O. (2018). Wheat production and consumption dynamics in an Asian rice economy: The Bangladesh case. *The European Journal of Development Research*, 30(2), 252-275.
- Rostow, W. W. (1960). *The Stage of Economic Growth*. Cambridge.
- The World Bank. (2020). *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. The World Bank.
- Webster, A. (1990). *Introduction to the Sociology of Development*. Macmillan International Higher Education.
- অমর্ত্য সেন (১৯৯৬), *জীবযাত্রা ও অর্থনীতি*, কলিকাতা: আনন্দ পাবলিশার্স।
- আনিসুর রহমান (১৯৯২), *উন্নয়ন জিজ্ঞাসা*, ঢাকা: প্রকাশনী।
- আবু মাহমুদ (১৯৮৪), *উন্নয়ন উচ্ছ্বাস ও তৃতীয় বিশ্ব*, ঢাকা: মুক্তধার।
- নাসিরউদ্দিন আহম্মদ ও মো: তারেক (১৯৯৩), *উন্নয়ন অর্থনীতি: বাংলাদেশ পরিপ্রেক্ষিত*, ঢাকা: বাংলা একাডেমি।
- মহিউদ্দীন খান আলমগীর (১৯৭৬), *উন্নয়ন অর্থনীতি: সমস্যা ও সমাধান*, ঢাকা: বাংলা একাডেমি।
- মফিজুর রহমান (১৯৮০), *বাংলাদেশের অর্থনীতিক উন্নয়ন*, ঢাকা: বাংলাদেশ বুক কর্পোরেশন।
- Related Websites, reports and documents.

1. Course Number : ACSS 253

Course Title: Economics-Three: Money, Banking, International Trade and Public Finance

2. Credit Hours: 4

3. Course Description

This course studies the role of money in the economy, the functional activities of the banking system, trade theories and the basic issues in the public finance. The aim of the course is to develop a basic understanding of the financial system including its instruments: how it operates and why it plays a central role in the economy. Keeping in view the recent developments in monetary and public finance, this course focuses less on the theory of money and banking and more on the implications of monetary policy and financial structure for the functioning of the economy.

4. Course Objectives

The objectives are to help learners to

- a. gain knowledge in basic concepts and functions of money and various monetary standards.
- b. familiarize with the operating principles of commercial banking with particular reference to Bangladesh.
- c. understand the functions of central Bank and its credit control mechanisms, and policies of credit of specialized financial institutions of Bangladesh.
- d. interpret revenue, expenditure and fiscal policy of the governments educational expenditure.
- e. acquire knowledge on different theories of international trade, terms of trade and balance of payment.
- f. understand and compare the roles of the International Monetary Fund (IMF), the World Bank and the Asian Development Bank (ADB).

5. Course Contents

Contact Hours

Unit 1: Money

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe types and functions of money
- b. analyze causes and effects of inflation
- c. review money market situation in Bangladesh

Content

- Money-Types of Money; Functions of Money
- Supply of Money; Quantity Theory of Money
- Cash Transaction and Cash Balance approaches
- Inflation, Causes and Effects of Inflation
- Money market in Bangladesh

Unit 2: Banking

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe concept of banking, types and functions of commercial banks
- b. explain the role of central bank as guardian of all banks and its credit control mechanism
- c. identify differences between principles of commercial and Islamic banking system

Content

- Banking: Banks, Types of Banks, Commercial Bank
- Principles of Commercial Bank, Functions & Role of Commercial Bank
- Creation of Credit Commercial Bank
- Central Bank, Function of Central Bank
- Instruments of Credit Control of a Central Bank
- Islamic Banking System-Profit & Loss Sharing-Modes of Investment

Unit 3: International Trade

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain key concepts of trades, balance of trade, balance of payments, terms of trade, free trade and protection
- b. review the effects of globalization on trade, commerce and economy

Content

- Concepts and Theories of trades
- Domestic Vs. International Trade
- Theories of International Trade-Classical Theory and Modern Theory
- Balance of Trade and Balance of Payments
- Terms of Trade. Free Trade and Protection
- Globalization and its effect on the trade, commerce and economy

Unit 4: Public Finance

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain monetary and fiscal policies of the Govt and their roles in economic development
- b. identify different sources of income/revenues of the Govt

Content

- Concept of public finance versus private finance
- Concept of monetary and fiscal policies
- Objectives of monetary and fiscal policies
- Role of monetary and fiscal policies in economic development
- Govt. expenditure and borrowing
- Sources of revenue: Principles of Taxation; Direct and indirect tax, Concepts of Value Added Tax (VAT)

Unit 5: National Budget and Education Budget

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain concepts of budgets and different types of budget
- b. analyze public debt, expenditure and budgetary allocations particularly in education

Content

- Concepts of Budget and Education Budget
- Types of budget: Balanced and unbalanced Budget, Surplus And Deficit Budget
- Deficit Financing and Economic Development

- Public Debt, Public Expenditure
- Objectives of Public Expenditure
- Analysis of Revenue, Development Budget and Expenditure

6. Instructional Strategies

- Lecture
- Discussion
- Project, work / assignment
- Power Point Presentation

7. Assessment

- | | |
|---|----|
| a. Two In-course Examinations | 30 |
| b. Semester Final Examination (MCQ + Essay) | 60 |
| c. Assignments / Power Point Presentations | 10 |

8. Recommended Books, Journals and Reports

- Bangladesh Bureau of Statistics. (2012). *Statistical Yearbook of Bangladesh-2011* (31st edition). Bangladesh Bureau of Statistics.
- Bangladesh Bureau of Statistics Bangladesh Bureau of Statistics. (2020). *Statistical Yearbook Bangladesh 2019* (39th edition). Bangladesh Bureau of Statistics.
- Bangladesh Bureau of Statistics. (2021). *Statistical Yearbook Bangladesh 2020* (40th edition). Bangladesh Bureau of Statistics.
- Bhuiyan, M. B., & Haque, M. Z. (2020). Budgetary Allocation in the Tourism Industry and GDP Growth in Bangladesh: An Empirical Analysis. *The Cost and Management*, 48(3), 15-26.
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- Collins, C. W. (1915). Constitutional Aspects of a National Budget System. *Yale LJ*, 25, 376.
- Dalton, H. (1946). *Principles of Public Finance*. George Routledge & Sons.
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- Islam, M. A. (2015). *Macro Economic Management in Bangladesh*. Gripper Mark Publications.
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- Jain, N.C. (2017). *Dictionary of Economics* (4th edition.). Aitbs Publishers And Distributors.
- Khairunnessa, F., Vazquez-Brust, D. A., & Yakovleva, N. (2021). A Review of the Recent Developments of Green Banking in Bangladesh. *Sustainability*, 13(4), 1904.
- Kindleberger, C. P. (1963). *International Economics*. Richard D. Irwin, Inc.
- Miller, R. L., & VanHoose, D. D. (1993). *Modern money and banking*. McGraw-Hill College.
- Mishkin, F. S. (2012). *Economics of Money, Banking, and Financial Markets*. Pearson College Div.

- Musgrave, R. (2017). *Public Finance In Theory and Practice*. McGraw Hill. Narian Agarwal.
- Rabbani, G., & Chowdhury, M. S. (2013). Policies and institutional supports for women entrepreneurship development in Bangladesh: Achievements and challenges. *International Journal of Research in Business and Social Science*, 2(1), 31-39.
- Sarkar, S. H., & Hossain, S. Z. (2016). Budgetary Challenges of Higher Education: Evidence from Bangladesh. *Journal of education and practice*, 7(12), 32-41.
- Sarker, A. A. (2000). Regulation of Islamic banking in Bangladesh: role of Bangladesh bank. *International journal of Islamic financial services*, 2(1), 45-56.
- Sarker, S., Ghosh, S. K., & Palit, M. (2015). ROLE OF BANKING-SECTOR TO INCLUSIVE GROWTH THROUGH INCLUSIVE FINANCE IN BANGLADESH. *Studies in Business & Economics*, 10(2). 145-159.
- Seth, M. L. (2017). *Money Banking, International Trade and Public Finance*. Lakshmi
- Sodersten, B., & Reed, G. (1994). *International Economics*. Palgrave Macmillan.
- Related Websites, reports and documents.

1. Course Number: ACSS 254

Course Title: Economics-Four: Economics and Education

2. Credit Hours: 4

3. Course Description

The course intends to introduce the concepts of Economics to education, economics' contributions to education, education as investment for human resource development, human development, financing of education and educational planning, process and plans in Bangladesh.

4. Course Objectives

The objectives are to help learners to

- a. gain knowledge of the basic concepts of Economics and its relation to education.
- b. gain skills in applying basic concepts of Economics to education and their relevance to education.
- c. understand education as investment for human resource development and human development.
- d. become socially and economically productive citizens through conceptualization of economics of education.
- e. develop skills in assessing the economics' contribution to education vis-a-vis education's contribution to the economy.
- f. identify sources of finance for education.
- g. understand the educational planning concepts and process in Bangladesh.

5. Course Contents

Contact Hours

Unit 1: Concepts of Economics, Education and Relationships

5

Learning Outcomes

At the end of this unit learners will be able to

- a. recall and relate basic concepts of economics and education
- b. explain their inter relationship

Content

- Concepts of Economics and Education and their inter relationships
- Demand, supply, investment, consumption, costs (direct, indirect opportunity cost, institutional, private, fixed), capital, profits/returns, GDP, GNP, efficiency (internal & external), employment and education interface

Unit 2: Education as Investment

12

Learning Outcomes

At the end of this unit learners will be able to

- a. define meanings, concepts of education as an investment and identify the pioneers in this school of thought
- b. explain education as private and social investment and their benefits
- c. assess the contribution of education to economic/national development and viz-a-viz

Content

- Concept, meaning, pioneers in this school of thought
- Education as private investment
- Education as social investment

- Rates of return to education (Primary, Secondary and Higher)
- Contribution of education to economic development and viz-z-viz national development
- Role of economics and education in Sustainable national development

Unit 3: Concepts of Human Resource, Human Development and Education

8

Learning Outcomes

At the end of this unit learners will be able to

- explain concepts of human resource and human development
- identify indicators of human development and status of different countries-developed, developing and underdeveloped
- assess the role of education in human resource and human development

Content

- Human resource development and Human development
- Indicators of human development
- Role of education in human resource development
- Role of education in human development

Unit 4: Financing of Education in Bangladesh

10

Learning Outcomes

At the end of this unit learners will be able to

- identify sources and types of financing of education
- explain education budget, types of budget and financial constraints in inter sectoral allocation
- review the role of donors in education and its impacts
- suggest measures to improve the wastage situation in education

Content

- Sources of finance, revenue, tax, levy, loan, grant and foreign aid
- Types of finance-public and private
- Educational Budget and Annual Development Plan
- Financial Constraints and its impact on educational development
- Role of the donors in education
- Wastage in education
- Measures for improvement of the situation

Unit 5: Planning for Education in Emergencies (EiES) and Development in Bangladesh

10

Learning Outcomes

At the end of this unit learners will be able to

- explain concepts of education in emergencies (EiEs)
- signify the need for educational planning
- describe the roles played by the Ministries and their various departments in developing and implementing such educational plans
- identify constraints and suggest measures for effective formulation and implementation of plans

Content

- Meaning, concepts, components and characteristics
- Types, objectives and need of planning for educational development

- Pre-requisites of successful educational planning in less developing countries
- Role of the Ministries-Ministry of Planning, MoPME, MoE in Educational Planning (Education 2030 and Vision 2041)
- Role of the Directorates of Education in project preparation and implementation
- Constraints in preparation and implementation of plans

6. Instructional Strategies

- a. Lecture and P.P.Presentation
- b. Discussion
- c. Project work/Assignment

7. Assessment

- a. Two Incourse Examinations 30
- b. Semester Final Examination (MCQ + Essay) 60
- c. Assignment / Project work/ Power point presentation 10

8. Recommended Books, Journals and Reports

- Aggarwal, Y.P. (1988). *Education and Human Resource Development*. Commonwealth Publishers.
- Anderson C. A. & Mary J. B. (1963). *Education Economic Development*. Aldine Publishing.
- Blaug, M. (1970). *An Introduction to the Economics of Education*. Allen Lane.
- Cecchi, D. (2006). *The economics of education: Human capital, family background and inequality*. Cambridge University Press.
- Frederic, H. & Myers, C. A. (1964), *Education, Manpower Economic Growth: Strategies of Human Resource Development*, McGraw-Hill book Co.
- GoB. (2020). *EDUCATION SECTOR PLAN (ESP) FOR BANGLADESH: FISCAL YEARS 2020/21 2024/25*. <http://planipolis.iiep.unesco.org/en/2020/education-sector-plan-esp-bangladesh-fiscal-years-202021-202425-7052>.
- Gunner, M. (1968). *The Asian Drama: An Inquiry into the Poverty of Nations*. Allen Unwine Publishers.
- Hussain, M. G., Failler, P., Karim, A. A., & Alam, M. K. (2018). Major opportunities of blue economy development in Bangladesh. *Journal of the Indian Ocean Region*, 14(1), 88-99.
- John, S. (1993). *Economics of Education*. George Allen & Unwine Ltd.
- Johnes, G. (1993). *The economics of education*. Macmillan International Higher Education.
- Khan, A. R. (2015). *The economy of Bangladesh: A quarter century of development*. Springer.
- Koch, A., Nafziger, J., & Nielsen, H. S. (2015). Behavioral economics of education. *Journal of Economic Behavior & Organization*, 115, 3-17.
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- Ministry of Education, Government of the People's Republic of Bangladesh. (2011). *National Skills Development Policy-2011*. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-dhaka/documents/publication/wcms_113958.pdf
- Ministry of Planning, Government of the People's Republic of Bangladesh. (2020). *Making Vision 2041 a Reality: Perspective Plan of Bangladesh 2021-2041*. Ministry of Planning, Government of the People's Republic of Bangladesh.
- Ministry of Planning, Government of the People's Republic of Bangladesh. (2010). *Perspective Plan of Bangladesh 2010-2021: Making Vision 2021 a Reality*. Ministry of Planning, Government of the People's Republic of Bangladesh.

- Mohiuddin, A. K. (2021). An Extensive Review of Health and Economy of Bangladesh Amid Covid-19 Pandemic. *IJHCM (International Journal of Human Capital Management)*, 5(1), 12-27.
- MoPME. (2015). *Education for All 2015 national review report: Bangladesh*. Ministry of Primary and Mass Education (MoPME), Government of Bangladesh.
- Rahman, M. H., & Siddiqui, S. A. (2015). RMG: prospect of contribution in economy of Bangladesh. *International Journal of Scientific and Research Publications*, 5(9), 1-8.
- Sheehan, J. (2011). *The economics of education* (Vol. 54). Routledge.
- Sodhi, T.S. (1978). *Education and Economic Development*. Ludhiana: Mukand.
- The World Bank. (2020). *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. The World Bank.
- UNDP. (2020). *Human Development Report 2020: The next frontier Human development and the Anthropocene*. UNDP. <http://hdr.undp.org/sites/default/files/hdr2020.pdf>
- UNESCO Institute for Statistics. (2019). *Meeting commitments: Are countries on track to achieve SDG 4?* <https://unesdoc.unesco.org/ark:/48223/pf0000369009/PDF/369009eng.pdf.multi>
- UNESCO Institute of Statistics. (2021). *Bangladesh: Education and Literacy*. <http://uis.unesco.org/en/country/bd#slideoutmenu>
- রওশন আরা চৌধুরী (১৯৯৩), শিক্ষা ও অর্থনীতি, ঢাকা।
- Related Websites, reports and documents.

1. Course Number: ACSS 261

Course Title: Political Science-One: Political Science Theory

2. Credit Hours : 4

3. Course Description

This course is designed to provide the students with necessary knowledge and understanding of the scope of Political Science as a discipline as well as the nature and meaning of Political theories, origin of the state, its functions, and elements of the state (population, definite territory, government and sovereignty).

4. Course Objectives

The objectives are to help learners to

- a. understand and define the concepts of political science as a discipline and the nature and meaning of the concepts of nationalism and internationalism.
- b. understand the theories of the origin of the state, its functions and the meaning and importance of the concept of government and sovereignty.
- c. enable them to evaluate the relevance of political theories and principles in particular contexts as citizens of a democratic country.

5. Course Contents

Contact Hours

Unit 1: Political Science

10

Learning Outcomes

At the end of this unit learners will be able to

- a. define concept, nature, scope and the method of Political Science
- b. understand and explain the importance of studying Political Science and its relationship with other discipline

Content

- Definitions and concepts of Political Science
- Nature, scope and method of Political Science
- Importance of studying Political Science
- Its relationship to other disciplines of Social Science

Unit 2: Nation

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of nations, nationalism and internationalism

Content

- Concept of Nation
- Nation and Nationalism
- Elements of Nationalism
- Internationalism

Unit 3: State

12

Learning Outcomes

At the end of this unit learners will be able to

- a. understand and explain theories of the origin of the states
- b. identify the differences and compare function of different types of the state

Content

- Theories of the origin of the state
- State of society and Individual
- Functions of the state, Concepts of Welfare State
- Liberalism. Utilitarianism and Totalitarianism
- Socialism and Capitalism
- Free Market Economy

Unit 4: Sovereignty

4

Learning Outcomes

At the end of this unit learners will be able to

- a. define the nature and characteristics of sovereignty, monistic and pluralistic theories

Content

- Nature and characteristics
- Monistic theories
- Pluralistic theories

Unit 5: Political Thinkers

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain political thoughts of some prominent political thinkers
- b. identify the differences and similarities of their thoughts

Content

- Political Thinkers and their thoughts
- Ancient Period: Plato, Aristotle
- Medieval Period: St. Augustine, St Thomas Aquinas
- Modern Period: Machiavelli, Hobbes, Locke, Rousseau

6. Instructional Strategies

- a. Lecture
- b. Discussion,
- c. Field Work
- d. Seminar
- e. Group Work
- f. Power Point (PP) Presentation

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation/Project work | 10 |

8. Recommended Books, Journals and Reports

- Ahmed, M. (1995). *Democracy and the Challenge of Development, A study of politics and military*
- Ahmed, M. (1983). *Bangladesh: Era of Sheikh Mujibur Rahman*. UPL.
- Ahmed, E. (1981). *Bureaucratic Elites in Segmented Economic Growth: Pakistan and Bangladesh*. Bangladesh Books International.
- Ahmed, M. (1979). *Bangladesh: The Constitutional Quest for Autonomy*. UPL interventions in Bangladesh. UPL.
- Almond, G. A. (1966). Political theory and political science. *American Political Science Review*, 60(4), 869-879.
- Bhuiyan, M. A. W. (1982). *Emergence of Bangladesh and Role of Awami League*. Vikas Publishing House Pvt. Ltd.
- Breuilly, J. (1993). *Nationalism and the State*. Manchester University Press.
- Burns, C. D. (1917). Ideals of democracy in England. *The International Journal of Ethics*, 27(4), 432-445.
- Burns, C. D. (2015). *International Politics*. Routledge.
- Chaube, S. K. (2009). *The Making and Working of the Indian Constitution*. National Book Trust.
- Chaudhury, G. W. (1969). *Constitutional Development in Pakistan*. Longman.
- Choudhury, D. (1994). *Constitutional Development in Bangladesh: Stresses and Strains*. Oxford University Press.
- Easton, D. (1955). The political system: An inquiry into the state of political science. *Ethics*, 65(3).
- Ellis, E. (1920). The Pluralistic State. *American Political Science Review*, 14(3), 393-407. doi:10.2307/1946259.
- Formisano, R. P. (2001). The concept of political culture. *Journal of Interdisciplinary History*, 31(3), 393-426.
- Gellner, E. (2008). *Nations and nationalism*. Cornell University Press.
- Government of the People's Republic of Bangladesh. (1999). *The Constitution of the People's Republic of Bangladesh*. Bangladesh Government Press.
- Kornai, J. (2000). What the change of system from socialism to capitalism does and does not mean. *Journal of Economic Perspectives*, 14(1), 27-42.
- Paul, C. (1997). *Capitalism and Democracy in the Third World*. Leicester University Press.
- Pierson, C., & Pierson, C. (2011). *The Modern State* (3rd ed.). Routledge.
- Plato, & Cornford, F. M. (1945). *The republic of Plato* (Vol. 30, pp. 175-203). Oxford University Press.
- Rashid, H. (2001). *Bangladesh: Politics, Government and Constitutional Development*. New Age Publication.
- Sabine, G. H. (1927). The Modern State. *The Philosophical Review*, 36(3), 258-262.
- Schumpeter, J. A. (2010). *Capitalism, socialism and democracy*. Routledge.
- Related Websites.

1. Course Number: ACSS 262

Course Title: Political Science-Two: Political Organization and Systems

2. Credit Hours : 4

3. Course Description

This course is designed to provide the students with knowledge of political organizations with special reference to the political systems of UK, USA and India.

4 Course Objectives

The objectives are to help learners to

- a. realize the concept of political organization, nature, scope and importance for a political system.
- b. acquaint them with the political systems of the UK, USA and India and compare among the systems.
- c. engage them in critical analysis of the differences in the political systems of those countries.

5. Course Contents

Contact Hours

Unit 1: Political Organization and System

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain political organization and systems covering constitution
- b. determine requisites of a good constitution

Content

- Constitution: meaning, definitions, scope and significance
- Constitution making processes and the role of political organizations
- Requisites of a good constitution

Unit 2: Forms of Government

5

Learning Outcomes

At the end of this unit learners will be able to

- a. compare and contrast among different forms of Government

Content

- Democracy and Dictatorship, Civil & Military
- Unitary and Federal Government
- Cabinet and Presidential forms of Government

Unit 3: Organs of Government

7

Learning Outcomes

At the end of this unit learners will be able to

- a. clarify the differences among various organs of the Government
- b. evaluate the roles of the political parties and Pressure groups

Content

- Legislature, Executive and Judiciary
- Separation of Power, Bureaucracy
- Electorate

- Political parties and Pressure groups
- Public Opinion

Unit 4: British and American Political System

8

Learning Outcomes

At the end of this unit learners will be able to

- explain features of the British Constitution
- identify different roles played by the Monarchy, Parliament, Cabinet and Political parties

Content

- Features of the British Constitution
- Conventions
- Monarchy
- Parliament
- Cabinet, Civil Service & Local government
- Political parties

Unit 5: American Political System

8

Learning Outcomes

At the end of this unit learners will be able to

- define the characteristics of the US constitution
- explain the power and functions of the President
- differentiate among the power and functions of the Congress, Judiciary, Federal and State government Pressure group

Content

- Characteristics of the US Constitution
- President
- Congress
- Judiciary, Federal and State government, Political Parties
- Pressure group

Unit 6: Indian Political System

8

Learning Outcomes

At the end of this unit learners will be able to

- describe the nature of the Indian Constitution
- analyses the functions of the Parliament, Cabinet, Judiciary, Federal and State government
- comprehend and analyses the role played by Political parties and Pressure group

Content

- Nature of the Indian Constitution
- Parliament
- Cabinet
- Judiciary, Federal and State government
- Legislature, Executive and Judiciary
- Political parties and Pressure group, Local Govt. and Bureaucracy
- Civil administration/nation building

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Field Work
- d. Seminar
- e. Group Project Work

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2= 30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation/Project Work | 10 |

8. Recommended Books, Journals and Reports

- Ahmed, E. (1981). *Bureaucratic Elites in Segmented Economic Growth: Pakistan and Bangladesh*. Bangladesh Books International.
- Ahmed, M. (1979). *Bangladesh: The Constitutional Quest for Autonomy*. UPL.
- Ahmed, M. (1995). *Democracy and the Challenge of Development, A study of politics and military interventions in Bangladesh*. UPL.
- Almond, G. A. (1966). Political theory and political science. *American Political Science Review*, 60(4), 869-879.
- Beard, C. A. (1925). *American government and politics*. Macmillan and Co.
- Birch, A. H. (2013). *British system of government*. Routledge.
- Breuilly, J. (1993). *Nationalism and the State*. Manchester University Press.
- Burns, C. D. (1917). Ideals of democracy in England. *The International Journal of Ethics*, 27(4), 432-445.
- Burns, C. D. (2015). *International Politics*. Routledge.
- Chaube, S. K. (2009). *The Making and Working of the Indian Constitution*. National Book Trust.
- Chaudhury, G. W. (1969). *Constitutional Development in Pakistan*. Longman.
- Choudhury, D. (1994). *Constitutional Development in Bangladesh: Stresses and Strains*. Oxford University Press.
- Easton, D. (1955). The political system: An inquiry into the state of political science. *Ethics*, 65(3).
- Ellis, E. (1920). The Pluralistic State. *American Political Science Review*, 14(3), 393-407. doi:10.2307/1946259.
- Formisano, R. P. (2001). The concept of political culture. *Journal of Interdisciplinary History*, 31(3), 393-426.
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- Government of the People's Republic of Bangladesh. (1999). *The Constitution of the People's Republic of Bangladesh*. Bangladesh Government Press.
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- Laski, H. J. (1944). The parliamentary and presidential systems. *Public Administration Review*, 4(4), 347-359.
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- Paul, C. (1997). *Capitalism and Democracy in the Third World*. Leicester University Press
- Pierson, C., & Pierson, C. (2011). *The Modern State* (3rd ed.). Routledge. <https://doi.org/10.4324/9780203810484>.

- Plato, & Cornford, F. M. (1945). *The republic of Plato* (Vol. 30, pp. 175-203). Oxford University Press.
- Rashid, H. (2001). *Bangladesh: Politics, Government and Constitutional Development*. New Age Publication.
- Sabine, G. H. (1927). The Modern State. *The Philosophical Review*, 36(3), 258-262.
- Schumpeter, J. A. (2010). *Capitalism, socialism and democracy*. Routledge.
- Strong, C. F. (1960). *Modern political constitutions: an introduction to the comparative study of their history and existing form*. <http://digilib.fisipol.ugm.ac.id/handle/15717717/12655>
- Related Websites.

1. Course Number: ACSS 263

Course Title : Political Science-Three: British Rule and the Emergence of Bangladesh

2. Credit Hours: 4

3. Course Description

This course is designed to provide the students with a through understanding of political development leading to the creation of Bangladesh. After the completion of the course the student will be able to realize the nature of political development till 1991, and understand the successes and failure.

4. Course Objectives

The objectives are to help learners to

- a. acquaint with the political context in the Indian sub-continent under the colonial rule.
- b. assist them to gain insight of various political reforms which influenced the political development leading to the creation of India and Pakistan as separate states.
- c. gain deeper knowledge about the factors and philosophies of the State Language movement and subsequent political development leading to the War of Liberation and emergence of Bangladesh.

5. Course Contents

Contact Hours

Unit 1: The Condition of Bengal in the Early Twentieth Century

6

Learning Outcomes

At the end of this unit learners will be able to

- a. analyses the socio-economic settings of Bengal in the Early Twentieth Century
- b. explain the causes and effects of the Partition of Bengal 1905
- c. analyses various Movement and its impacts on Birth of Pakistan

Content

- Socio-economic settings
- Hindu Muslim Relations
- Partition of Bengal 1905
- The Muslim League
- The Krishak Proja Party
- Pakistan Movement and Birth of Pakistan

Unit 2: Constitutional Reforms

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe various constitutional reforms starting from 1909 to Independence Act of 1947
- b. identify salient features of constitutional reforms

Content

- Morley-Minto Reform 1909
- Lucknow Pact 1916
- Working of Dyarchy
- Edwin Montagu Chelmsford Reforms 1919
- Bengal Pact 1923
- Act of 1935, Cabinet Mission, Indian Act and
- Independence Act of 1947

Unit 3: Pakistan and Internal Colonialism

12

Learning Outcomes

At the end of this unit learners will be able to

- a. identify controversies in making Pakistan's Constitution
- b. analyses the factors affecting 1954 Election
- c. determine the nature and impact of Martial Law on 1956 and 1962 constitution
- d. explain the growth and development of Bengali nationalism: Six Points and Eleven points movements
- e. comprehend and describe the War of Liberation 1971

Content

- Controversies in Constitution making in Pakistan
- Growth of Opposition Political Parties
- 1954 Election, Martial Law and its Impact, constitution of 1956 and 1962
- Six Points and Eleven Points movements
- Growth and development of Bengali nationalism and national identity
- Liberation War, 1971

Unit 3: Emergence of Bangladesh

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the constitution making process after the emergence of Bangladesh
- b. evaluate the period of Awami League Government (1971-1975)
- c. explain the situation and events leading to Change of Government in 1975

Content

- Constitution making and Parliamentary Politics
- Awami League Government (1971-1975)
- Fourth Amendments-1975
- Change of Government 1975
- Military Intervention of 1975
- Armed Forces

Unit 5: Institutionalization of Democracy

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the roles played by Political parties and other Pressure groups
- b. express the roles of political and economic Institution and establishing accountability

Content

- Political parties and Pressure groups
- Making of civil society and State
- Role of civil society in democracy
- Political and Economic Institution and establishing accountability

6. Instructional Strategies

- Lecture
- Discussion
- Field Work
- Seminar
- Group Work

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation/ Project Work | 10 |

8. Recommended Books, Journals and Reports

- Ahmad, K. (1970). *A Social History of Bengal*. Progoti Publishers.
- Ahmad, K. (1975). *A socio political history of Bengal and the birth of Bangladesh*. Inside Library.
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- Dasgupta, A., Togawa, M. & Barkat, A. (2011). *Minorities and the State: Changing Social and Political Landscape of Bengal*. SAGE Publications.
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- তোফায়েল আহমেদ (২০১৭). *উনসত্তরের গণ-আন্দোলন ও বঙ্গবন্ধু*, ঢাকা: আগামী প্রকাশনী।
- এইচ. টি. ইমাম (২০১২), *বাংলাদেশ সরকার ও ১৯৭১*, ঢাকা: বাংলা একাডেমী।
- কবির চৌধুরী (২০১৬), *বঙ্গবন্ধু: জননায়ক থেকে রাষ্ট্রনায়ক*, ঢাকা: অঘোষা প্রকাশন।
- জাহানারা ইমাম (১৯৯৯), *একাত্তরের দিনগুলি* (দ্বাবিংশতম মুদ্রণ), ঢাকা: সন্ধানী প্রকাশনী।
- সিরাজুল ইসলাম (২০১৭), *বাংলাদেশের ইতিহাস ১৭০৪-১৯৭১ (সম্পাদিত)*. ১ম, ২য় ও ৩য় খণ্ড. তৃতীয় সংস্করণ, ঢাকা: বাংলাদেশ এশিয়াটিক সোসাইটি।
- শামসুজ্জামান খান (২০১৭), *বঙ্গবন্ধুর রাষ্ট্রচিন্তা ও বর্তমান বাংলাদেশ*, ঢাকা: বিজয় প্রকাশ।
- এম. আর. আখতার মুকুল (২০১৮), *চরমপত্র*, ঢাকা: অনন্যা।
- মুনতাসির মামুন (২০১৩), *বঙ্গবন্ধু কীভাবে আমাদের স্বাধীনতা এনেছিলেন*. ঢাকা: মাওলা ব্রাদার্স।
- শেখ মুজিবুর রহমান (২০১৬), *অসমাপ্ত আত্মজীবনী*, ঢাকা: ইউনিভার্সিটি প্রেস লিমিটেড।
- শেখ মুজিবুর রহমান (২০১৭), *কারাগারে রোজনামা*, ঢাকা: বাংলা একাডেমি।
- হারুন-অর রশিদ (২০০৮), *৭ই মার্চের ভাষণ কেন বিশ্ব ঐতিহ্যের সম্পদ: বঙ্গবন্ধু মুক্তিযুদ্ধ বাংলাদেশ*, ঢাকা: অন্য প্রকাশ।
- হারুন-অর রশিদ (২০১৬), *‘আমাদের বাঁচার দাবী’: ৬ দফা’র ৫০ বছর*, ঢাকা: বাংলা একাডেমি।
- মোনায়েম সরকার (২০০১), *বাংলাদেশের সংক্ষিপ্ত ইতিহাস*, ঢাকা: আগামী প্রকাশনী।
- সিরাজুল ইসলাম (সম্পাদিত). (১৯৯২). *বাংলাদেশ ইতিহাস ১৭০৪-১৯৭১*, ১ম খণ্ড (*রাজনৈতিক ইতিহাস*), ঢাকা: এশিয়াটিক সোসাইটি অব বাংলাদেশ।

Related Websites.

1. Course Number: ACSS 264

CourseTitle: Political Science-Four: Politics and Education

2. Credit Hours: 4

3. Course Description

This course is designed to provide knowledge and understanding of various faces of politics and its role in education. Political ideas, philosophies, forces, factors, institutions shaping the education policies and education system have been highlighted. Development, control and regulation of education as a system under different political regimes are the major focuses of this course.

4. Course Objectives

The objectives are to help learners to

- a. understand and describe concepts and ideas of politics and education.
- b. understand the historical development of political forces and its linkages to educational development during the British period till today.
- c. gain knowledge on various political forces, ideologies, parties and their linkages to education.
- d. comprehend the role of the ruling political party and Government and its control and influence on education.
- e. develop skills to compare development status of education under various Government.
- f. gain insight and analyze how politics and education can influence each other.

5. Course Contents

Contact Hours

Unit 1: Introduction

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts of politics and education
- b. describe the roles of political, social and other pressure groups influencing educational development

Content

- Education as basic human rights, education and democracy, state, authority, power, control, order, legitimacy, citizenship, rights and responsibilities in shaping public policies, political ideologies and education, roles of political, social and other pressure groups influencing educational development

Unit 2: Politics and State's Policies for Education

14

Learning Outcomes

At the end of this unit learners will be able to

- a. analyse major development of education during the British Period
- b. analyse state education policies to develop education system during Pakistan Period

Content

- British Period
- Pakistan Period

A: British Period (Major developments)

- a. Primary education
- b. Secondary and Higher Education
- c. University Act : 1904, 1936

B: Pakistan Period (1947-70)

7

- a. State education policies on Primary, Secondary, Higher education
- b. Technical/ Vocational education, teacher education. women education
- c. Student's Movement and influences on educational reforms (language movement, movement against commissions reforms)

Unit 3: Politics and Education in Bangladesh after Independence

7

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic Principles of the state and Constitutional responsibilities
- b. comprehend and analyze influence of political ideologies, forces & organizations on educational reforms

Content

- Basic Principles of the state
- Constitutional responsibilities
- Influence of political ideologies, forces & organizations on educational reforms
- States Policies and Educational Reforms, Acts, Ordinances, Laws, Education Commissions

Unit 4: Basic Principles and State Education Policy after 1975

7

Learning Outcomes

At the end of this unit learners will be able to

- a. describe Change in the political scenario in 1975
- b. explain change in states basic principles
- c. compare change in the states basic principles before and after 1975 and its effect on education

Content

- Change in the political scenario
- Change in values and control over curriculum and management
- Policies regarding Primary, Secondary, Higher, Madrasa, Teacher Education, Technical and Vocational Education (TVET)

Unit 5: Education and Politics: Interrelationships

7

Learning Outcomes

At the end of this unit learners will be able to

- a. explain educational policy-making process
- b. analyze the role of the politicians, bureaucrats, teachers, students, community in policy-making
- c. explain present social and political condition and its influence on education

Content

- National Education Policy 2010
- Educational policy formulation, democratic values, political institutions & policy-making
- Role of the politicians, role of the national assembly, bureaucrats, teachers, students and community
- Government's control over curriculum
- Present social and political condition and its influence on education

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group-work
- d. Debate
- e. Seminar
- f. Project Work

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation/Project Work | 10 |

8. Recommended Books, Journals and Reports

- Ahmed, E. (Ed.). (1989). *Society and politics in Bangladesh*. Academic Publishers.
- Apple, M. W. (2004). Creating difference: Neo-liberalism, neo-conservatism and the politics of educational reform. *Educational policy*, 18(1), 12-44.
- Ball, S. J. (1995). *Politics and policy-making in Education: Explorations in sociology*. Routledge.
- Carr, W., & Hartnett, A. (1996). *Education and the struggle for democracy: The politics of educational ideas*. McGraw-Hill Education.
- Dove, L. A. (1983). Educational Policy in Bangladesh 1978-81: promise and performance in political perspective. *Comparative Education*, 19(1), 73-88.
- Giroux, H. (1982). The Politics of Educational Theory. *Social Text*, (5), 87-107. doi:10.2307/466337.
- Goel, S. L. & Aruna Goel (1994). *Educational policy & administration*. Deep Publishers.
- Government of the People's Republic of Bangladesh. (1999). *The Constitution of the People's Republic of Bangladesh*. Bangladesh Government Press.
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- Henry, M., Lingard, B., Rizvi, F., & Taylor, S. (2013). *Educational policy and the politics of change*. Routledge.
- Kabir, A. H. & Islam, K. (2020). Construction of a 'Secular' education system: what does it mean in Bangladeshi context? *Teacher's World*, Vol. 44-45, 103-116.
- Kogan, M. (1978). *The politics of educational change*. Manchester University Press.
- Lubienski, C., Scott, J., & DeBray, E. (2014). The politics of research production, promotion, and utilization in educational policy. *Educational Policy*, 28(2), 131-144.
- McDermott, K. A. (2011). *High-stakes reform: The politics of educational accountability*. Georgetown University Press.
- Merritt, R. L., & Coombs, F. S. (1977). Politics and educational reform. *Comparative Education Review*, 21(2/3), 247-273.
- Ministry of Education. (2010). *The National Education Policy*. Ministry of Education.
- Nurulla, S., Naik, J. P., & Husain, Z. (1943). *A history of education in India: (during the British period)*. Macmillan.
- Russell, B. (1932). *Education and the social order*. George Allen and Unwin, Ltd.
- Sen, R. (1986). *Political elites in Bangladesh*. University Press.
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৯৭), *বাংলাদেশ জাতীয় শিক্ষানীতি প্রণয়ন কমিটি রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৮৮), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৭৪), *বাংলাদেশ শিক্ষা কমিশন রিপোর্ট*, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।

জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড (১৯৭৭), বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি কমিটি রিপোর্ট, ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।

জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড (১৯৯৫), বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি কমিটি রিপোর্ট, ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।

নিতাই দাস (২০০০), বাংলাদেশে সমাজ রাজনীতি ও শিক্ষা, ঢাকা: মীরা প্রকাশন।

মো: ইলিয়াস আলী (১৯৯৯), যুগে যুগে শিক্ষা কমিশন ও শিক্ষার উত্তরণ, ঢাকা: জাগরনী প্রকাশনী।

শেখ মুজিবুর রহমান (২০১৬), অসমাপ্ত আত্মজীবনী, ঢাকা: ইউনিভার্সিটি প্রেস লিমিটেড।

Related websites

1. Course Number: ACSS 271

Course Title: Sociology-One: Introductory Sociology

2. Credit Hours: 4

3. Course Description

The Course is designed to impart knowledge about the basic concepts and theories of Sociology. Focus has been given on the critical exposition of the nature of social phenomena and processes.

4. Course Objectives

The objectives are to help learners to

- a. acquaint with the definition, nature and scope of Sociology.
- b. understand relationship of Sociology with other disciplines.
- c. acquaint with different primary concepts of Sociology.
- d. comprehend various social processes.
- e. acquaint with major institutions of society.
- f. understand social inequality or stratification and social mobility.
- g. comprehend social structure and analyze various factors responsible for its changes.

5. Course Contents

Contact Hours

Unit 1: The Sociological Perspective

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept, nature and scope of Sociology
- b. explain the relation of Sociology with other disciplines

Content

- Definition, nature and scope of Sociology
- Relation of Sociology with other disciplines

Unit 2: Sociology and Scientific Approach

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the nature of Sociological inquiry
- b. analyze the methods of Sociological investigations

Content

- Nature of Sociological Inquiry
- Methods of Sociological Investigations

Unit 3: Primary Concepts of Sociology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the primary concepts of Sociology
- b. explain the relationships among these concepts

Content

- Society
- Group
- Community
- Culture
- Association
- Norms
- Institution
- Values

Unit 4: Elements of Social Organisations**5****Learning Outcomes**

At the end of this unit learners will be able to

- a. describe the role and status of Social Organizations
- b. analyze the characteristics of Social Structure

Content

- Role and Status
- Social Structure

Unit 5: Social Process and Control**4****Learning Outcomes**

At the end of this unit learners will be able to

- a. describe the process of Socialization
- b. identify the agencies of Social control
- c. explain the role of the agencies in Social control

Content

- Socialization
- Social control

Unit 6: Institution**6****Learning Outcomes**

At the end of this unit learners will be able to

- a. identify different types of institutions
- b. describe characteristics of different types (Social, Economic, Political and Educational) of institutions
- c. analyze structure and functions of different institutions

Content

- Social Institutions: Family and Marriage
- Economic Institutions: Property and Ownership
- Political Institutions: State and Government
- Educational Institutions: School, College and University

Unit 7: Social Stratification

6

Learning Outcomes

At the end of this unit learners will be able to

- identify and describe the major elements of Social Stratification
- analyze the structure and functions of major forms of Social Stratification
- explain the relationship of Social Stratification and Social Mobility

Content

- Major Elements of Social Stratification
 - Wealth
 - Status
 - Power
- Main forms of Social Stratification
 - Slavery
 - Estate
 - Caste
 - Class
- Social Stratification and Social Mobility

Unit 8: Social Change

5

Learning Outcomes

At the end of this unit learners will be able to

- describe the major concepts of Social Change
- explain the role of the factors responsible for Social Change

Content

- Major concepts
 - Evolution
 - Progress
 - Development
 - Change
- Factors responsible for social change

6. Instructional Strategies

- Lecture
- Discussion
- Question-answer
- Observation
- Debate
- Students Seminar etc.

7. Assessment

- | | |
|---|-----------|
| a. Two In-course Examinations | 15×2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20+40= 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Adorno, T. W. (2018). *Introduction to sociology*. John Wiley & Sons.
- Alexander, J. C., Thompson, K., & Edles, L. D. (2016). *Contemporary Introduction to Sociology: culture and society in transition*. Routledge.
- Bruce, S. (1999), *Sociology*, Oxford University Press.
- Bottomore T. B. (1986), *Sociology—A Guide to Problems and Literature*, Blackie & Son (India) Ltd.
- Broom, L. & Selznick, P. (1979), *Sociology*, Harper & Row.
- Browne, K. (2005). *An introduction to sociology*. Polity.
- Cragun, R., & Cragun, D. (2006). *Introduction to sociology*. Blackslee River
- Coser, L. (1983), *Introduction to Sociology*, London: Harcourt Brace Jovanovich.
- Federic, R. C. (1975), *Sociology*, London: Macmillan.
- Fulcher, J. (1999), *Sociology*, Oxford University Press.
- Green. A. W. (1952), *Sociology*, MacGraw Hill.
- Giddens, A. (1993), *Sociology*, Polity Press.
- Giddings, F. H. (1986), *The Principles of Sociology*, Macmillan.
- Inkeles, A. (1980), *What is Sociology?* McGraw-Hill.
- Landis, J. R (1977), *Sociology*, Wadsworth.
- Spencer, M. (1976), *Foundations of Modern Sociology*, Englewood Cliffs Prentice Hall.
- Nobbs, J. et. al. (1975), *Sociology*, Macmillan.
- Popenoe, D. (1986), *Sociology*, Englewood Cliffs.
- Ritzer, G. (2019). *Essentials of sociology*. Sage Publications.
- Ross, E. A. (1907), *Principles of Sociology*, Houghton Mifflin Co.
- Robertson, I. (1980), *Sociology*, Worth Pub.
- Smelser, N. (1995), *Sociology*, Prentice Hall.
- Spencer, H. (1969), *Principles of Sociology*, Macmillan.
- Spencer, H. (1961), *The Study of Sociology*, Michigan University Press.
- Thompson, W. E., Hickey, J. V., & Thompson, M. L. (2016). *Society in focus: An introduction to sociology*. Rowman & Littlefield.
- Zander-James W. V. (1996), *Sociology*, McGraw-Hill.
- এ. কে. নাজমুল করিম (১৯৯২), *সমাজবিজ্ঞান সমীক্ষা*, ঢাকা: নওরোজ কিতাবস্থান।
- আনোয়ার উল্লাহ চৌধুরী এবং অন্যান্য (১৯৮৬), *সমাজবিজ্ঞান শব্দকোষ*, ঢাকা: বাংলা একাডেমী।
- অনাদি কুমার মহাপাত্র (১৯৯৬), *বিষয় সমাজতত্ত্ব*, কলিকাতা: ইন্ডিয়ান বুক কনসার্ন।
- রংলাল সেন (১৯৯৭), *সমাজকাঠামো পুঁজিবাদ ও সমাজতত্ত্ব*, ঢাকা: নিউ এজ পাবলিকেশন্স।
- মুহম্মদ হাবিবুর রহমান (১৯৯৫), *সমাজবিজ্ঞান পরিচিতি*, ঢাকা: হাসান বুক ডিপো।

1. Course Number: ACSS 272

Course Title: Sociology-Two: Sociological Theories

2. Credit Hours: 4

3. Course Description

The course deals with major sociological theories. In this regard, emphasis has been given on classical theories as well as on contemporary theories and schools of sociology. The main purpose of this course is to create a wide outlook among the students about the historical development of sociological thoughts and theories. In this context, sociological thoughts and theories on education have been taken into especial consideration.

4. Course Objectives

The objectives are to help learners to

- a. acquaint with the historical development and dimensions of sociological theories.
- b. make analytical explanation of different social phenomena applying multidimensional approaches.
- c. able critically analyse educational phenomena following sociological theories.
- d. able to apply these sociological theories to analyse the Bangladesh society.

5. Course Contents

Contact Hours

Unit 1: Sociological Theory

3

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the meaning of Sociological Theory
- b. analyse the characteristics of Sociological Theory

Content

- Meaning of Sociological Theory
- Characteristics of Sociological Theory

Unit 2: Classical Theories – 1

13

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the Sociological Theories of Auguste Comte, Karl Marx and Emile Durkheim
- b. critically apply the theories of Auguste Comte, Karl Marx and Emile Durkheim into the analysis of Bangladesh society

Content

- Auguste Comte: Positivism-Law of Three Stages-Developments of the Sciences
- Karl Marx: Dialectical and Historical Materialism, Alienation, Class and Class Struggle
- Emile Durkheim: Division of Labour-Social Solidarity Suicide-Religion-Methodology-Education

Unit 3: Classical Theories – 2

12

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the Theories of Max Weber, Velfredo Pareto, Karl Mannheim and Talcott Parsons

- b. critically analyse and apply different concepts and theories of Max Weber, Velfredo Pareto, Karl Mannheim and Talcott Parsons into the analysis of Bangladesh society

Content

- Max Weber: Power and Authority-Rationalization-Economy-Society-Religion
- Velfredo Pareto Elite & Circulation of Elites-Psychoanalysis-Logico-Experimental Method
- Karl Mannheim: Sociology of knowledge-Ideology & Development of Social Thought
- Talcott Parsons: Social Action-Social Systems-Structural-Functionalism

Unit 4: Contemporary Sociological Theories and Schools

12

Learning Outcomes

At the end of this unit learners will be able to

- a. critically analyze of Contemporary Sociological Theories and Schools e.g. Frankfurt School, Exchange Theory, Postcolonialism and Anti-positivism
- b. evaluate the Crisis in Contemporary Sociology

Content

- Frankfurt School: Herbert Marcuse, Jurgen Habermas
- Exchange Theory: Peter Blau- George Homans
- Anti-positivism: Phenomenology-Ethnomethodology, Dramaturgy- Erving Goffman
- Post-colonial theories: Edward Said – Orientalism, Homi Bhaba – Hybridisation, Gayatri Spivak – Subaltern Speak
- Pierre Bourdeau – Social Capital, Habitus
- Crisis in Sociology

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Question-answer
- d. Observation
- e. Debate
- f. Students Seminar etc.

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Abrahamson, M. (1991), *Sociological Theory*, Prentice-Hall.
- Barnes, H. E. (1970), *An Introduction to the History of Sociology*, University Press.
- Barnes, B. (2013), *Scientific Knowledge and Sociological Theories*, Routledge.
- Bhabha, H. (2015). *Debating cultural hybridity: Multicultural identities and the politics of anti-racism*. Zed Books Ltd.
- Blalock, H. M. (1980), *Sociological Theory and Research-A Critical Appraisal*, The Free Press.
- Bottomore, T. B. (1991), *Crisis and Contention in Sociology*, Routledge and Kegan Paul.
- Bourdieu, P. (1994). *The field of cultural production*. Columbia University Press

- Comte, A. (1866), *Auguste Comte and Positivism* (by John Stuart Mill), Teubner.
- Coser L. A. and Rosenberg, B. (1976), *Sociological Theory*, Macmillan.
- Durkheim, E. (1965), *Education and Sociology*, The Free Press.
- Fron, R. (1983), *Main Currents in Sociological Thought*, Penguin Books Ltd.
- Guvitch, G. and Moore, W. E. (1949), *Twentieth Century Sociology*, Macmillan.
- Johnson, D. P. (1981), *Sociological Theory: Classical Founders and Contemporary Perspective*, John Wiley & Sons.
- Kennedy, R. J. R. (1949). *Historical Sociology: Its Origin and Development*. University of Chicago Press.
- Martindale, D. (1960), *The Nature and Types of Sociological Theories*, International Library of Sociology and Social Reconstruction.
- Marx, K. (1967), *The Communist Manifesto (1848)*, Penguin Books.
- Marx, K. (1973), *Economic and Philosophical Manuscripts (1844)*, Progress Publishers.
- Marx, K. (1973), *The German Ideology (1976)*, Progress Publishers.
- Marx, K. (1975), *Capital*, Volumes. I, 2, & 3, Progress Publishers.
- Merton. R. K. (1959), *Social Theory and Social Structure*, The Free Press.
- Ritzer, G. (1996), *Sociological Theory*, McGraw-Hill.
- Said, E. (2014). *Orientalism*. Routledge.
- Schroeder, R. (1992), *Max Weber and the Sociology of Culture*, SAGE Publications.
- Sorokin, P. A. (1928), *Contemporary Sociological Theories*, Harper.
- Spivak, G. (1999). *Can the subaltern speak?*. Harvard University Press.
- Timasheff, N.S. (1967), *Sociological Theory: Its Nature and Growth*, Random.
- Weber, M. (1950), *General Economic History*, The Free Press.
- Weber, M. (1962), *The Protestant Ethic and the Spirit of Capitalism*, Allen and Unwin.
- Weber, M. (1963), *The Sociology of Religion*, Methuen & Co.
- Weber, M. (1967), *Essays in Sociology*, Routledge and Kegan Paul.
- Weber, M. (1983), *On Capitalism, Bureaucracy and religion* (a selection of texts ed.by Stanislaw Andreski), George Allen.
- Walford. G & Pickering W.S.F. (1998), *Durkheim and Modern Education*, Routledge.
- Whimster, S., & Lash, S. (Eds.). (2014). *Max Weber, rationality and modernity*. Routledge.
- মোকাররাম হোসেন (সম্পাদিত) (১৯৭৭), *সমাজ: চিন্তা ও মতবাদ*, ঢাকা, বাংলাদেশ বই ঘর।

1. Course Number: ACSS 273

Course Title: Sociology – Three: Sociology of Organizations

2. Credit Hours: 4

3. Course Description

The course provides an understanding of the basic concepts and theories of Organisation. In this course attempts have also been made to bring into focus the structure and functions of different organisations. In this regard, emphasis has been given on the organisations of the under developed and developing countries.

4. Course Objectives

The objectives are to help learners to

- a. acquire knowledge and understanding about the meaning and definition of organisation.
- b. understand the historical development of organisations.
- c. acquaint with the theoretical models of analysing organisations.
- d. understand nature, characteristics and typologies of organisation.
- e. comprehend functions of different organisations.
- f. analyze the structure and functions of organisations of the Third World countries.

5. Course Contents

Contact Hours

Unit 1: Introduction to Organization

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the meaning of Organisation
- b. explain the Characteristics, Nature and Scope of Organisation

Content

- Definition
- Characteristics

Unit 2: Organization in Historical Perspective

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify and describe the major characteristics of Organisation in Pre-capitalist societies
- b. explain the different aspects of the Organisations in Capitalist and Socialist societies

Content

- Organisations in Pre-capitalist societies
- Capitalism and Organisations
- Socialism and Organisations

Unit 3: Models of Analyzing Organizations

10

Learning Outcomes

At the end of this unit learners will be able to

- a. identify major Organisational Models in Sociology
- b. explain the different theoretical models of analyzing Organisations
- c. differentiate core aspects of these Models

Content

- Psychological Model
- Technological Model
- Conflict Model
- Structural Functionalism
- System Analysis
- Scientific-Management Model

Unit 4: Technology and Organization

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the relation of Organisation with Technologies
- b. explain characteristics of Organisational Structure in different Environment
- c. analyze the relationship of Technology and Alienation

Content

- Organisations as Socio-Technical Systems
- Environment and Organisational Structure
- Technology and Alienation

Unit 5: Decision-Making Process in Organisation

8

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the Resource, Power, Authority and their role to control of Organisation
- b. explain the Communication and Decision Making process in Organisation
- c. evaluate the merits and demerits of Controlled Management and Autonomous Management in Organisation

Content

- Resources, Power, Authority and Organisation
- Communication and the Process of Decision making
- Control and Autonomy

Unit 6: Organisations in the Developing World

5

Learning Outcomes

At the end of this unit learners will be able to

- a. analyse the structure and functions of various organisations including educational organisations in the developing countries
- b. describe the different dimensions of Problems in the Organisations of developing countries

Content

- Organisations: Local, National, Multinational
- Educational Organisations: Local, National and International
- Organisational Problems

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Question-answer
- d. Observation
- e. Debate
- f. Students Seminar etc.

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Alexis, M. & Wilson, C. Z. (1967), *Organizational Decision Making*, Prentice-Hall.
- Baker, F. (1973), *Organizational Systems*, Irwin.
- Blau, P. M. (1955), *The Dynamics of Bureaucracy*, Chicago University Press.
- Blau, P. M., & Scott, W. R. (2003). *Formal organizations: A comparative approach*. Stanford University Press.
- Bowey, A.M. (1976), *The Sociology of Organizations*, Hodder.
- David, C. (1998). *Organizational change-sociological perspectives*. Routledge
- Burrell, G. & Morgan, G. (1979), *Sociological Paradigms and Organizational Analysis*, Heinemann.
- Dale, E. (1975), *Organization*, D.B. Taraporevala Sons.
- Dayal, I., & Dayal, A. K. (1983). *Organisation for Management in Developing Countries* (No. 1). Concept Publishing Company.
- Emery, J. C. (1969), *Organizational Planning and Control Systems: Theory and Technology*, Macmillan.
- Etzioni, A. (1975), *A Comparative Analysis of Complex Organizations*, The Free Press.
- Etzioni, A. (1981), *Modern Organizations*, Prentice-Hall.
- Etzioni, A & Lehman, E.W. (1980), *A Sociological Reader on Complex Organization*, Holt, Rinehart, Winston.
- Halloran, J. (1978), *Applied Human Relations: An Organizational Approach*, Prentice-Hall.
- Hellriegel, D. (2001), *Organizational Behaviour, Australia*, South-Western College Publishing.
- Lewis, P. V. (1975), *Organizational Communication*, Grid.
- March, J. G. & Simon, H. A. (1963), *Organizations*, Wiley and Sons.
- Margulies N. & Raia. A. P. (1972), *Organizational Development: Values, Process and Technology*, McGraw-Hill.
- Mayo, E. (2004). *The human problems of an industrial civilization*. Routledge.
- McPhee, R. D., & Poole, M. S. (2001). Organizational structures and configurations. *The new handbook of organizational communication: Advances in theory, research, and methods*, 503, 543.
- McPhee, R. D. & Tompkins. P.E. (1995), *Organizational Communication: Traditional Themes and New Directions*, Sage Publication.
- Moorhead, G., & Griffin, R. W. (1989). *Organizational behaviour*. Princeton, NK.
- Mouzelis, N. P. (1975), *Organization and Bureaucracy*, Routledge and Kegan Paul.
- Myrdal, G. (1968), *Asian Drama*, Allen.
- Perrow, C. (1972), *Organizational Analysis: A Sociological View*, Tavistock Pub.
- Prasad, K. (1996), *Organizational Development for Excellence*, Macmillan India Ltd.

- Presthus, R. (1978), *The Oranizational Society*, St. Martin's Press.
- Ritson, N. (2001), *Organizational Management*, Viva Books.
- Robbins, S. P. (1990), *Organizational Theory: Structure, Design and Application*, Prentice Hall.
- Sharma, R.A. (1982), *Organizational Theory and Behaviour*, McGraw Hill.
- Sharina, R.D. (1978), *Organizational Management*, Life and Life Publishers.
- Silverman, D. (1970), *The Theory of Organizations: A Sociological Framework*, Heinemann.
- Silverman, D., & Silverman, J. H. (1971). *Theory of Organisations*. Basic Books.
- Starbuck, W.H. (ed.) (1917), *Organizational Growth & Development*, Penguin Books.
- Thompson, J. D. (1967), *Organization in Action: Social Science Bases of Administrative Theory*, McGraw-Hill.

1. Course Number: ACSS 274

Course Title: Sociology–Four: Social Structures of Bangladesh

2. Credit Hours: 4

3. Course Description

The course deals with the historical development of the Social Structure of Bangladesh up to 1947 and the development of social structure of Contemporary Bangladesh since 1947. Concentration has been given on the study of social structure of the period just preceding the British rule and nature of the changes brought in by the British rule in the tradition bound society. In such an analysis, particular emphasis has been given on the impact of British rule on the socio-economic system of Pre-British and post British Bangladesh.

4. Course Objectives

The objectives are to help learners to

- a. understand critical exposition of the different concepts and theories of social structure.
- b. comprehend methodological issues and problems relating to the analysis of different social structure.
- c. make a comparison of the social structures of the oriental and occidental societies.
- d. acquaint with the social structure of Pre-British India (especially of Bengal).
- e. comprehend the changing pattern of the social structure in British India.
- f. analyse the impact of different socio-political movements and reforms on the social structures of Bengal and of East Pakistan.
- g. acquaint with the nature and characteristics of the social structure of contemporary Bangladesh.
- h. understand the changing pattern of the social structure of present Bangladesh.

5. Course Contents

Contact Hours

Unit 1: Social Structure – an Introduction

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe different concepts and theories of social structure
- b. make a comparison of the basic characteristics of the Occidental and Oriental societies

Content

- Critical exposition of the different concepts and theories of social structure
- Social structure of the occidental societies
- Social structure of the Oriental societies

Unit 2: Main Features of the Social Structure of Pre-British India (Especially Bengal)

10

Learning Outcomes

At the end of this unit learners will be able to

- a. describe and compare the major aspects of Indian and European Feudalism
- b. analyze core aspects of the Social Groups and Institutions in the village community of Bengal
- c. describe the origin and nature of the towns in Pre-British India

Identify basic characteristics of Industrial and Trade Structure of Pre-British India (especially Bengal)

Content

- Major aspects of Indian and European Feudalism
- Origin and Development of Bengal Village and Land Tenure System
- Social groups and Institutions in the village community of Bengal
- Economic and Political Structure of Village Community of Bengal
- Towns in Pre-British India
- Industrial and Trade Structure

Unit 3: Change in Social Structure during the British Rule in India

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the induction and consequences of Permanent Settlement Act of 1793
- b. evaluate the influences of Tenancy Laws on the peasant society of Bengal
- c. evaluate role of English education its consequences on Bengal society
- d. analyze process of the development of Commercial and Industrial Capitalist Classes in Bengal
- e. explain the changes of Bengal society through Socio-Political and Reform Movements

Content

- Permanent Settlement Act of 1793
- Enactment of Different Tenancy Laws and Their Influences upon the Present Society of Bengal
- English Education and development of middle classes
- Rise of Commercial and Industrial Capitalist Class
- Socio-Political and Reform Movements

Unit 4: Factors Responsible for the Change in Social Structure of East Pakistan

6

Learning Outcomes

At the end of this unit learners will be able to

- a. analyse role of different Social factors for changing Social Structure of East Pakistan

Content

- Peasant Movement of Bengal in 1946-1947
- East Bengal State Acquisition and Tenancy Act of 1950
- Language Movement of 1950s
- Six Point Movement of 1966
- Mass Movement of 1969
- Rise of Economic and Intelligentsia Groups

Unit 5: Contemporary Bangladesh Society

8

Learning Outcomes

At the end of this unit learners will be able to

- a. identify and describe the basic characteristics of Contemporary Bangladesh Society
- b. evaluate impact of urbanization and industrialisation on the Social Structure of Bangladesh

Content

- Debate on the existing Mode of Production in Bangladesh
- Tradition and Modernity in Rural Bangladesh
- Impact of urbanization and industrialization upon the Social Structure of Bangladesh
- Growth of middle classes
- Power structure of Bangladesh

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Question-answer
- d. Observation
- e. Debate
- f. Students Seminar etc.

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Semester Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Alamgir, M. K. (ed.) (1980), *Development Strategy for Bangladesh*, Centre for Social Studies.
- Alamgir, M. K. (ed.) (1981), *Land Reforms in Bangladesh*, Centre for Social Studies.
- Bhattacharya, B. (1980). *Socio-Political Currents in Bengal: A Nineteenth Century Perspective*. Vikas.
- Broomfield, J. H. (1940), *Twentieth Century Bengal*, Calcutta National Council of Education.
- Broomfield, J. H. (1968), *Elite Conflict in a Plural Society: A Twentieth Century Bengal*, University of California.
- Basu, A. (1974), *The Growth of Education and Political Development in India 1898 to 1920*, Oxford University.
- Chowdhury, A. (1978), *A Bangladesh Village: A Study of Social Stratification*, Center for Social Studies.
- Chowdhury, A. (1982), *Agrarian Relations and Development in Bangladesh*, Oxford & IBD.
- Desai, A.R. (1959), *Social Background of Indian Nationalism*, Popular Book Depot.
- Gordon, L. A. (1974), *Bengali The Nationalist Movement 1876-1940*, Monohar Book Service.
- Gupta, A. C. et. al. (1958), *Studies in the Bengal Renaissance*, Calcutta National Council of Education.
- Habib, I. (1963), *The Agrarian, System of Mughal India*, Asia Publication House.
- Hunter, W. W. (1975), *The Indian Musalmans*, Trübner and Company.
- Islam, S. (1992), *History of Bangladesh, 1704-1971*, Vols. 3, Asiatic Society of Bangladesh.
- Jahangir, B. K. (1981), *Rural Society, Power Structure and Class Practice*, Centre for Social Studies.
- Jahan, R. (ed.) (2000), *Bangladesh: Promise and Performance*, The University Press Ltd.
- Karim, A. K. N. (1976), *Changing Society in India, Pakistan and Bangladesh*, Nowroze Kitabistan.
- Karim, A. K. N. (1980), *The Dynamics of Bangladesh Society*, Vikas.
- Kosambi, D. D. (1975), *Introduction to the Study of Indian History*, Popular Prakashan.
- Mirsa, B. B. (1961), *The Indian Middle Classes: Their Growth in Modern Times*, Oxford University Press.
- Mallick, A. R. (1977), *British Policy and the Muslims in Bengal, 1757-1856*, Bangla Academy.

- Marx, K. (1975), *Capital Vol, I, 2, & 3*, Progress Publishers.
- Marx, K. (1975), *On Colonialism*, Progress Publishers.
- Nanmer, R. Van M. (ed.) (1975), *Aspects of Bengali History and Society*, University Press of Hawaii.
- Natarajan, S. A (1959), *A Century of Social Reform in India*, Asia Publishing House.
- Nurullah, S. & Naik, J. P. (1955), *A Students' History of Education in India*, Macmillan & Co.
- Sarker, S (1979), *On the Bengal Renaissance*, Papyrus.
- Sharma, R. S. (1965), *Indian Feudalism*, University of Calcutta.
- Seber, M. (1960), *The Religion of India*, The Free Press.
- Sen, R. (1986), *Political Elites in Bangladesh*, Dhaka University Press Ltd.
- Siddiqui, K. (1982), *The Political Economy of Rural Poverty in Bangladesh*, National Institute of Local Government.
- Siddiqui, K. (1984), *Local Government in Bangladesh*, National Institute of Local Government.
- Wittfogel, K. A. (1957), *The Oriental Despotism*, Yale University Press.
- Weber, M. (1958), *The Protestant Ethic and The Spirit of Capitalism*, Scribner's.
- আতিউর রহমান (১৯৮৫), *ভাষা আন্দোলনের পটভূমি*, ঢাকা: ইউনিভার্সিটি প্রেস লি:।
- আনোয়ার উল্লাহ চৌধুরী এবং অন্যান্য (১৯৮৬), *সমাজবিজ্ঞান শব্দকোষ*, ঢাকা: বাংলা একাডেমী।
- ঘোষ, বিনয় (১৯৭৮), *বাংলার বিদ্বৎসমাজ*, কলিকাতা, প্রকাশ ভবন।
- ওয়াকিল আহমদ (১৯৯৭), *উনিশ শতকে মুসলমানের চিন্তা ও চেতনার ধারা*, ঢাকা: বাংলা একাডেমী।
- বদরুদ্দিন উমর (১৯৭৪), *চিরস্থায়ী বন্দোবস্ত বাংলাদেশের কৃষক*, ঢাকা: সুবর্ণ প্রকাশ।
- সিরাজুল ইসলাম (সম্পাদিত) (১৯৯৩), *বাংলাদেশের ইতিহাস*, ৩ খণ্ড, ঢাকা: এশিয়াটিক সোসাইটি অব বাংলাদেশ।
- রংগলাল সেন (১৯৯৭), *সমাজকাঠামো পুঁজিবাদ ও সমাজতন্ত্র*, ঢাকা: নিউ এজ পাবলিকেশন্স।
- রংগলাল সেন (১৯৯৭), *বাংলাদেশের সামাজিক স্তরবিন্যাস*, ঢাকা: বাংলা একাডেমী।

1. Course Number: : ACS 311

Course Title: Mathematics-One: Fundamentals of Mathematics

2. Credit Hours: 4

3. Course Description

This is a basic course in mathematics which expands the concepts learnt earlier in the areas of basic algebra and calculus. This course provides a review of essential mathematical skills that is needed for future mathematics courses. The course will prepare the learners for more challenging work in mathematics by providing them necessary background and insight. Mathematical software such as *GeoGebra* or *Mathematica* or *MathLab* are used in specific problem solving tasks. These tasks are expected to stimulate learning and deepen mathematical understanding.

4. Course Objectives

The objectives are to help learners to

- a. develop in-depth understanding of basic algebra towards higher concepts in relation to school mathematics education in Bangladesh.
- b. define the terms, theories and characteristics of different topics in higher algebra and apply them as needed.
- c. explain the concept of complex numbers.
- d. use algebraic, numerical and graphical processes in manipulating and analyzing inequalities, and functional relationships.
- e. formulate mathematical models for a variety of real-world phenomenon.
- f. analyze the concept of limit and continuity for different functions.
- g. apply mathematical and technological tools to determine the veracity of mathematical models.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Mathematics as an integral part of Mathematics and Mathematics Education 2
Learning Outcomes

At the end of this unit learners will be able to

- a. explain what mathematics is
- b. describe scopes of Mathematics
- c. rationale of studying Mathematics as part of Mathematics Education

Content

- What Mathematics is
- Scopes of Mathematics
- Rationale of studying Mathematics as part of Mathematics Education

Unit 2: Real and Complex Numbers

6

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the structure and properties of real number systems including their decimal representation

- b. illustrate the representation of irrational numbers including the number line model
- c. apply the trigonometric form of complex numbers including De Moivre's Theorem
- d. function with Euler form of complex numbers

Content

- **Real Numbers:** Introduction to real number, Classification of Real Numbers, Axioms of Real Numbers, Rational & Irrational Numbers as Decimals, Recurring Decimals as Fractions, Irrationality of \sqrt{p} (where p is an integer) with graphical representation on number line
- **Complex Numbers:** Introduction to Complex Numbers and Complex Variables, Concepts on Modulus, Arguments, Complex Conjugates, Complex Plane, Polar Form of Complex Numbers, Graphical Representation of Complex Numbers, Operations in Polar Form, De Moivre's Theorem, n^{th} root of Complex Numbers, Complex Exponential & Euler's Formula

Unit 3: Inequality

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic properties of inequalities
- b. solve linear inequality in one and two variable(s), compound inequalities and quadratic inequality in one variable by representing their solutions on number line
- c. identify inequalities with no solution or infinitely many solutions
- d. state and prove Weierstrass's Inequality and Cauchy's Inequality
- e. graph the solutions of systems of linear inequalities
- f. solve simple applied problems involving inequalities

Content

- **Linear Inequality:** Basic concepts on Linear Inequality in One (and Two) Variable(s), Intervals and Number line, Absolute Value and its Properties, Arithmetic, Geometric & Harmonic Means of Positive Quantities & Relationships among them, Weierstrass's Inequality, Cauchy's Inequality, Graphical Representation of Inequality in Two Variables
- **Quadratic Inequality:** Introduction, Graphical Representation of Quadratic Inequality, Real-life Applications of Linear and Quadratic Inequalities

Unit 4: Functions of Single Variable and Functions of Several Variables

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of function in real life situation
- b. identify some basic functions such as power, root, reciprocal, piece-wise defined, exponential and logarithmic functions and find the domain and range of them
- c. analyze and interpret various functions, including construction of their graphs considering various aspects (e.g. shifting, reflecting, asymptotes, end behaviour and the zeros etc.)
- d. perform operations on functions: composition, difference quotients, basic operations and inverses including construction of their graphs
- e. develop mathematical models (e.g. exponential growth and decay) from word problems
- f. explain the basic idea of function of several variables
- g. determine the domain and level curve of the functions of several variables

Content

- **Functions of Single Variable:** Concept of Function align with real world phenomena; Representations of Function- Verbal; Numerical (Tabular); Algebraic and Graphical, Types of Functions and their Pictorial Representation- Injective; Surjective; Bijective; Many-to-One; Domain, Range and Graphical Representation of Functions, Vertical Line Test of Function, Inverse Function- Domain; Range and its Graphical Representation, horizontal line test, Varieties in Functions- Polynomial Functions; Trigonometric Functions; Periodic Function; Even Function; Odd Function; Bounded Function; Monotonic Function; Exponential Function; Logarithmic Function; Piece-wise defined Function; Hyperbolic Functions, Graphs of Linear, Quadratic, Cubic, Rational & Hyperbolic Functions, Operations of Functions: $f+g$, fg , f/g , $f(g(x))$, Polynomial Functions: Monomials, Binomials, Zeros & x-intercepts, Repeated Zeros of multiplicity
- **Functions of Several Variables:** Concepts of multiple variables and multivariable function or function of several variables, Domain of the function of several variables, level curve or contour curve

Unit 5: Limit and Continuity of Functions of Single and Several Variables

10

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze functions graphically using the concept of limits
- b. evaluate limits of single-variable and multi-variable functions graphically and algebraically
- c. evaluate continuity of functions of single-variable and multi-variable graphically and algebraically

Content

- **Functions of single variable**
Limit: Origin of Calculus, Concept of limits (Intuitive approach, Tabular & Algebraic Methods), One-sided & Two-sided Limits, Computing Limits of several functions (Polynomial functions, Rational functions, Functions involving Radicals, Piece-wise defined functions, Hyperbolic functions), Limits at infinity & Infinite Limits, Asymptotes,
Continuity: Introduction to Continuity, Continuity at a point, Continuity on (Open & Closed) Intervals and their Graphical Representation, Computing Continuity of several functions (Polynomial functions, Rational functions, Composite functions, Inverse functions, Trigonometric functions, Hyperbolic functions), Intermediate value theorem and its application, Squeezing theorem and its application
- **Functions of Several Variables**
Limit: Concepts of limits for function of several variables, computing limit of functions of several variables
Continuity: Concepts of continuity for function of several variables, determining continuity and discontinuity of functions of several variables

B. Problem Solving Using Mathematical Software

6

Using Mathematical Software such as *GeoGebra* or *Mathematica* or *MathLab* the learners will be able to

- a. plot graphs of linear and quadratic inequalities
- b. plot graphs of various functions by exploring their domain and range
- c. examine limit, continuity/discontinuity of functions single-variable and several variables

6. Instructional Strategies

- a. Lecture and classroom interaction
- b. Group study and discussion
- c. Individual/pair/group presentation
- d. Problem Solving Activities
- e. Practice of Mathematical Software

7. Assessment

- a. In-course Examinations
- b. Semester Final Examination
- c. Assignment: Problem Solving Using Mathematical Software

8. Recommended Books, Journals and Reports

- Anton, H., Biven, I. & Davis, S. (2005). *Calculus (10th Ed.)*. John Wiley and Sons Inc.
- Childs, L.N. (2009). *A Concrete Introduction to Higher Algebra (3rd Ed.)*. Springer Science Business media.
- Fine, H. (2006). *The Number-System of Algebra: Treated Theoretically and Historically (2nd Ed.)*. D.C. Heath & Co.
- Steege, R. & Bailey, K. (2003). *Intermediate Algebra: Schuam's Outline Series*. Macgraw Hill.
- Bergman, B. (2010). *Mathematics: Elementary and Intermediate Algebra (4th Ed.)*. Macgraw Hill.
- Booth, D. J. (1998). *Foundations of Mathematics: Modern Applications (3rd Ed.)*. Addison and Wesley Longman Ltd.
- Hall, H.S. & Knight, S.R. (1987). *Higher Algebra*. Macmillan and Co. Ltd.
- Hoffmann, L. D. & Brandley, G. L. (2004). *Calculus For Business, Economics, and the Social and Life Sciences (8th Ed.)*. McGraw Hill Higher Education.
- Hollister, H. A. (1976). *Algebra and Trigonometry*. Harper & Row.
- Seymour, L. (1981). *Theory and Problems of Set Theory and Related Topics, Schaum's Outline Series*. McGraw Hill Book Company.

1 Course Number: ACS 312

Course Title: Mathematics-Two: Differential and Integral Calculus

2 Credit Hours: 4

3 Course Description

This is a fundamental course on calculus dealing specifically with derivatives and integrals of algebraic and transcendental functions. Students will learn to use the techniques of differentiation and integration. This course is designed to prepare the learners for future mathematics courses in applying the knowledge acquired in different contexts. Emphasis is given on clarity of understanding and rigor in reasoning. Mathematical software such as *GeoGebra* or *Mathematica* or *MathLab* are used in specific problem solving tasks which are designed for the purpose of continuous assessment. These tasks are expected to stimulate learning and deepen mathematical understanding.

4 Course Objectives

The objectives are to help learners to

- a. define, explain, analyze and describe the basic concepts of derivatives and anti-derivatives.
- b. apply the theorems, principles and methods for solution of theoretical as well as practical problems.
- c. develop the skill to differentiate and integrate different types of functions.
- d. acquaint with the skills to formulate and analyze mathematical models for a variety of real-world phenomenon.
- e. apply mathematical and technological tools to determine the veracity of mathematical models.

5 Course Contents

Contact Hours

A. Theoretical

Unit 1: Derivative

10.5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic concept of derivatives
- b. illustrate the relationship between differentiability and continuity
- c. compute derivatives of different types of functions
- d. explicate chain rule, implicit differentiation and parametric differentiation
- e. analyze the nature of function (increase, decrease and Concavity)
- f. use the first derivative and second derivative test to determine the nature (relative maximum, relative minimum, neither) of a critical point
- g. illustrate and apply Rolle's Theorem and Mean Value Theorem
- h. apply derivatives in real life situation

Content

- Basic concepts of tangent lines, average velocity, instantaneous velocity and rate of change
- Definition of derivatives with geometrical interpretation
- Differentiability at a point and on (open & closed) intervals
- Relationship between differentiability and continuity

- Computing derivatives of several functions (Constant function, polynomial functions, rational function, piecewise-defined functions, trigonometric functions, hyperbolic functions) using both definition of derivatives and derivative formulas
- Chain rule, implicit differentiation, and parametric differentiation
- Nature of function (increase, decrease and Concavity) and their graphical representation
- Concepts of inflexion point, relative extrema and absolute extrema of function and its applicability in real life
- Rolle's Theorem and its applications
- Mean Value Theorem and its applications

Unit 2: Successive Differentiation

3

Learning Outcomes

At the end of this unit learners will be able to

- a. state the concepts of higher order derivatives
- b. derive Leibnitz's Theorem with its application

Content

- Concepts of higher order derivatives
- Leibnitz's Theorem and its applications

Unit 3: Partial Derivatives

3

Learning Outcomes

At the end of this unit learners will be able to

- a. interpret the partial derivatives and higher order partial derivatives
- b. analyze chain rule for two and three variables, including construction of their tree diagrams
- c. compute partial derivatives of functions of several variables

Content

- Concepts of partial derivatives with graphical representation
- Computation of partial derivatives of functions of two and more than two variables
- Chain rule (two and three variables)

Unit 4: Definite and Indefinite Integrals

10.5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of integration aligned with the area problem
- b. perform integration using elementary integration formulae
- c. solve integration by different techniques
- d. analyze and use the Fundamental Theorem of Calculus

Content

- Area problem and basic concepts of integration
- Elementary integration formulae
- Methods of integration (Integration by Parts and Method of Substitution)
- Trigonometric integrals, trigonometric substitutions
- Integrating rational function
- Fundamental Theorem of Calculus and its application

Unit 5: Improper Integrals

3

Learning Outcomes

At the end of this unit learners will be able to

- a. state the basic properties of improper integrals
- b. calculate different forms of improper integrals

Content

- Properties of improper integrals
- Computations of improper integrals

Unit 6: Multiple Integrals

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the basic concepts of double integrals over rectangular, non-rectangular region and polar coordinate system
- b. calculate double integrals over rectangular and non-rectangular region

Content

- Double integrals over rectangular regions, non-rectangular regions and their applications

B. Problem Solving Using Mathematical Software

6

Using Mathematical Software such as *GeoGebra* or *Mathematica* or *MathLab* the learners will be able to

- a. plot increasing and decreasing function
- b. plot graphical representation of partial derivatives
- c. calculate the area under curve using integration and draw the region

6 Instructional Strategies

- a. Lecture and classroom interaction
- b. Group study and discussion
- c. Individual/pair/group presentation
- d. Problem Solving Activities
- e. Practice of Mathematical Software(s)

7 Assessment

- a. In-course Examinations
- b. Semester Final Examination
- c. Assignment: Problem Solving Using Mathematical

8 Recommended Books, Journals and Reports

Anton, H., Biven, I. & Davis, S. (2005). *Calculus (10th Ed.)*. John Wiley and Sons Inc.

Courant, R., & McShane, E. J. (1988). *Differential and Integral Calculus*. V.1 (2nd Ed.). John Wiley & Sons.

Hoffmann & Brandley (2004). *Calculus For Business, Economics, and the Social and Life Sciences (8th Ed.)*. McGraw Hill Higher Education.

Smith, R. T. & Minton R. B. (2005), *Calculus(2nd International Ed.)*. McGraw Hill Higher Education.

1 Course Number: ACS 313

Course Title: Mathematics-Three: Special Functions and Differential Equations

2 Credit Hours: 4

3 Course Description

This course is designed to serve the purposes of acquainting students with a number of key areas of mathematics including special functions and their applications. This course also involves formulation of applied problems in terms of differential equations and different techniques of obtaining their solutions including the application of Laplace Transforms. In addition, the course introduces the student to the concept of power series and solution of higher order differential equations in terms of power series. Mathematical software such as *GeoGebra* or *Mathematica* or *MathLab* is used in specific problem solving tasks for rigorous mathematical understanding.

4 Course Objectives

The objectives are to help learners to

- a. be familiar with the properties and applications of some special functions in the branch of higher mathematics.
- b. formulate simple problems in terms of differential equations and to find their solutions.
- c. solve theoretical problems relating to ordinary and higher order differential equations.

5 Course Contents

Contact Hours

A. Theoretical

Unit 1: Special Functions

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify beta and gamma functions
- b. compute gamma functions of negative numbers
- c. formulate the relationship between gamma and beta functions
- d. apply beta and gamma functions in evaluating integrals

Content

- **Gamma and Beta Functions:** The factorial function, introduction to gamma function, gamma function of negative numbers, formulas involving gamma functions, introduction to beta function, relationship between gamma and beta functions, applications of beta and gamma functions in evaluating integrals

Unit 2: First Order Differential Equations

7.5

Learning Outcomes

At the end of this unit learners will be able to

- a. distinguish between linear, non-linear, partial and ordinary differential equations
- b. formulate simple applied problems in terms of ordinary differential equations
- c. recognize and solve variable separable differential equation
- d. recognize and solve homogeneous differential equation
- e. recognize and solve exact differential equation
- f. recognize and solve linear differential equation by the use of an integrating factor
- g. recognize and solve equations of Bernoulli

- h. find particular solution to initial value problems
- i. solve basic application problems described by first order differential equations

Content

- **Introduction to Ordinary Differential Equations:** Definitions and terminology, basic concepts on initial and boundary value problems, formulation of ordinary differential equations (ODE)
- **Ordinary Differential Equations of First Order:** Variable separable, Homogenous equation, Exact differential equations, Linear differential equation, Bernoulli's equation, applications of first order ordinary differential equations

Unit 3: Linear Differential Equations of Higher Order

6

Learning Outcomes

At the end of this unit learners will be able to

- a. find the complete solution of a homogeneous differential equation with constant coefficients by examining the characteristic equation and its roots
- b. build solutions to differential equations by superposition of known solutions
- c. find the complete solution of a non-homogeneous differential equation as a linear combination of the complementary function and a particular solution
- d. find the complete solution of a non-homogeneous differential equation with constant coefficients by the method of undetermined coefficients
- e. find the complete solution of a non-homogeneous differential equation with constant coefficients by the method of variation of parameters

Content

- **Linear Ordinary Differential Equations of Higher Order:** Homogenous linear differential equations with constant coefficients, Non-homogenous linear differential equations with constant coefficients, Method of Undetermined Coefficients, Method of Variation of Parameters

Unit 4: Power Series and Power Series Solution of Differential Equations with Variable Coefficients

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the ordinary and singular points of a differential equations
- b. find power series solutions about ordinary points
- c. explain the method of finding power series solutions about singular points

Content

- **Basic concepts of Power Series:** Representation of functions by power series, differentiation and integration of power series
- Basic concepts of ordinary and singular points of a differential equation and types of singularities
- Application of power series solution in solving linear differential equation with variable coefficients

Unit 5: Laplace Transform

8.5

Learning Outcomes

At the end of this unit learners will be able to

- define Laplace Transform and Inverse Laplace Transform
- state the basic properties of Laplace Transform and Inverse Laplace Transforms
- find the Laplace Transform of elementary functions by definition
- find the Laplace Transform and Inverse Laplace Transform of different functions using formula
- find the Laplace Transform of derivatives
- solve linear differential equation with constant coefficients using Laplace Transform

Content

- Introduction to Laplace Transform and Inverse Laplace Transform, Laplace transforms and Inverse Laplace transforms of some elementary functions
- Properties of Laplace Transforms and Inverse Laplace Transforms
- Methods of finding Laplace Transforms and Inverse Laplace Transforms of different functions
- Laplace Transforms of derivatives
- Application of Laplace transform in solving linear differential equations with constant coefficients

B. Problem Solving Using Mathematical Software

6

Using Mathematical Software such as *GeoGebra* or *Mathematica* or *MathLab* the learners will be able to

- graph gamma and beta functions
- plot slope fields of various differential equations
- compute solution of ODE
- compute solution of higher order differential equations using Laplace Transform

6 Instructional Strategies

- Lecture and classroom interaction
- Group study and discussion
- Individual/pair/group presentation
- Problem Solving Activities
- Practice of Mathematical Software

7 Assessment

- In-course Examinations
- Semester Final Examination
- Assignment: Problem Solving Using Mathematical Software

8 Recommended Books, Journals and Reports

- Matin, M. A. & Chakraborty, B. (1994). *Integral Calculus and Differential Equation*. Standard Publication.
- Murphy, G.M. (1960). *Ordinary Differential Equations and their solution*. Dover Publication.
- Patnaik, R. K. (2009). *Introduction to Differential Equations*. PHI Learning.
- Piaggio, H.T.H. (1920). *Differential Equations*. S. Kumar and Co.
- Ross, S. L. (1989). *Introduction to Ordinary Differential Equations* (4th Ed.). John Wiley and

Sons Inc.

Spiegel, R. M. (1965). *Laplace Transforms* (Schaum's Outlines series). McGraw Hill book company.

Zill, D. G. (1986). *A First Course in Differential Equations with Modeling Applications* (6th Ed.). Brooks & Cole Publishing Company.

1. **Course Number: ACS 314**

Course Title: Mathematics-Four: Methods of Applied Mathematics

2. **Course Hours: 4**

3. **Course Description**

This applied course of mathematics is designed to acquaint learners with appropriate critical thinking, analytical reasoning and problem solving techniques to model and solve problems in the fields of Science, Social Sciences, Business and Economics. Use of technology (Mathematical software such as *GeoGebra* or *Mathematica* or *MathLab* software), where appropriate, is encouraged in this course to enhance and facilitate mathematical understanding in solving problems and presenting solutions. Emphasis is given on developing an appreciation of the significance of different branches of mathematics in practical applications.

4. **Course Objectives**

The objectives are to help learners to

- a. judge the aesthetic beauty of various numerical methods in applied field.
- b. appreciate the significance of several mathematical methods such as Fourier Series in engineering problems.
- c. apply definite integral as a tool for evaluating lengths of curves, areas and volumes of bounded regions.
- d. identify patterns of complex numbers in real life situations.
- e. apply matrix algebra in real life situation including encoding and decoding messages & analyzing consumer preference mode in economic system.

5. **Course Contents**

Contact Hours

A. Theoretical

Unit 1: Numerical Methods and Computation

4.5

Learning Outcomes

At the end of this unit learners will be able to

- explain the limitations of analytical method which lead to evolve numerical method
- use bisection method to locate and estimate manually the roots of algebraic & transcendental equations
- apply bisection method using *Mathematica* software to estimate the roots of algebraic & transcendental equations
- assess the bisection method
- apply Newton-Raphson method to estimate the roots of algebraic & transcendental equations

Content

- **Bisection Method/Interval Halving Method:** Introduction as *root-finding method*, logic of the method with geometric interpretation, iteration tasks involved in the method, Algorithm to use in *Mathematica*, advantages and disadvantages of using bisection method
- **Newton Raphson Method:** Introduction as an *open method* of single starting point, idea of the method with geometric interpretation, iteration tasks involved in the method

Unit 2: Matrix Algebra

4.5

Learning Outcomes

At the end of this unit learners will be able to

- perform row operations and find echelon forms
- use row operations to find the inverse of a square matrix
- apply methods of matrix algebra in solving a system of linear algebraic equations including Gaussian elimination and inverse matrices
- analyze the application of matrices in real life situation

Content

- **Elementary Matrix Operations:** Introduction, Elementary Row Operations (ERO), Row Echelon Form & Reduced Row Echelon Form, Gaussian Elimination in Solving System of Linear Equations, Computation of Inverse Matrix & Rank of Matrix by ERO
- **Real-Life Application of Matrices:** Stochastic matrix in consumer preference model, application of matrix multiplication to encode and decode messages, application of matrix algebra to analyze an economic system (Leontief input-output model), matrix form of linear regression

Unit 3: Definite Integral: A Tool for Evaluating Lengths of Curves, Areas and Volumes of Bounded Regions

6

Learning Outcomes

At the end of this unit learners will be able to

- approximate area between curves with rectangles
- evaluate the area between two curves
- find arc length of a line segment
- calculate volume by slicing and volumes of disk, washers & cylindrical shells
- evaluate surface area of a solid generated by revolution about x-axis

Content

- Areas of Cartesian curves
- Lengths of Curves
- Volumes of Revolutions: volumes by slicing; disk and washers
- Volume by cylindrical shells
- Surface Areas of Revolutions about axis

Unit 4: Fourier Series Expansion

8.5

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept, properties and application of Fourier Series in engineering problems
- derive a Fourier Series of a given periodic function by evaluating Fourier coefficients
- expand an odd or even function as a half-range cosine or sine Fourier series

Content

- Concepts of periodic functions, Introduction to Fourier Series as expansion of periodic functions, Derivation of Fourier Coefficients, Periodic expansion as Half-range Cosine or Sine Fourier Series

Unit 5: Complex Functions

4.5

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept and properties of complex functions
- identify patterns of complex numbers in real life situations
- differentiate complex functions
- apply Cauchy-Riemann Equation in identifying analytic functions

Content

- Function of a Complex Variable, Complex Differentiation & Cauchy-Riemann Equation

B. Problem Solving Using Mathematical Software

12

Using Mathematical Software such as *GeoGebra* or *Mathematica* or *MathLab* the learners will be able to

- a. apply bisection method using *Mathematica* software to estimate the roots of algebraic & transcendental equations
- b. apply mathematical software in solving a system of linear algebraic equations by Gaussian elimination method
- c. find area between curves and arc length of a line segment using mathematical software
- d. calculate volume by slicing and volumes of disk, washers & cylindrical shells using mathematical software
- e. apply mathematical software to evaluate surface area of a solid generated by revolution about x-axis

6. Instructional Strategies

- a. Lecture and classroom interaction
- b. Group study and discussion
- c. Individual/pair/group presentation
- d. Problem Solving Activities
- e. Practice of Mathematical Software

7. Assessment

- a. In-course Examinations
- b. Semester Final Examination
- c. Assignment: Problem Solving Using Mathematical Software

8. Recommended Books, Journals and Reports

- Bowen, E. K., Prichett, G. D. & Saber. J. C. (2005). *Mathematics with Application in Management and Economics*. Burr Ridge.
- Hoffmann, L. D. & Brandley, G. L. (2004). *Calculus For Business, Economics, and the Social and Life Sciences*, (8th Edition). McGraw Hill Higher Education.
- Murray, R. S. (1981). *Theory and Problems of Complex Variables: Schaum's Outline Series*. McGraw-Hill.
- Saran, N. & Goyal, J. K. (2010). *Introduction to Matrices*. Pragati Prakashan.
- Spiegel, R. M. (1974). *Theory and problems of Fourier Analysis* (Schaum's Outlines series). McGraw-Hill.

1. Course Number: ACS 321

Course Title: Physics-One: Mechanics, Waves and Properties of Matter

2. Credit Hours: 4

3. Course Description

The study of material properties explored the misty of nature and natural phenomena and given birth to many novel scientific innovations. This course therefore exposes students to elucidate the fundamental laws of nature in relation with the concepts of vectors, mechanics, gravitation, waves, sound, elasticity, and fluid dynamics. Consequently, the students will be able to relate and analyse nature and natural phenomena with the help of above mentioned science concepts. This course will also inspire students to understand the contribution of innovations through designing a number hands-on experiments and laboratory works. These activities will guide students to clarify their learning, and also increase their interest to investigate and apply science concepts in exploring the nature and natural phenomena.

4. Course Objectives

The objectives are to help learners to

- a. explore various aspects of integrating Physics in Science Education.
- b. develop concepts, laws and principles of mechanics, waves and properties of matter.
- c. apply concepts, laws and principles of mechanics, waves and properties of matter with nature and natural world.
- d. demonstrate skills and abilities needed to conduct investigation in mechanics, waves and properties of matter.
- e. develop an attitude to analyse nature and natural phenomena with the concept of mechanics, waves and properties of matter.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Learning Physics in Science Education

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain science as a way of understanding the natural world
- b. identify the scope of Physics
- c. explain the rationale for including Physics in the Science Education

Content

- Science as a way of understanding the natural world
- What is Physics?
- Scope of Physics
- Physics in Science Education Discipline

Unit 2: Vectors

6

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept of scalar and vector quantities, their products, differentiation, operation of gradient, divergence, curl, and vector integration
- relate the concept of scalar and vector quantities, their products, differentiation, operation of gradient, divergence, curl, and vector integration with nature and natural phenomena
- explain the theorem of Green, Gauss, and Stokes
- develop an attitude to analyse real-life situation and natural phenomena with the concept of vectors

Content

- Vector and scalars
- The vector and scalar product and their application
- Vector differentiation and its application
- Gradient, Divergence, Curl and their applications
- Vector integration and its application
- Theorem of Green, Gauss and Stokes

Unit 3: Mechanics

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the concepts of motion, force, energy and angular rotation
- analyze real-life phenomena with the concepts of motion, force, energy and angular rotation

Content

- Projectile motion
- Frictional force, properties of drag force and terminal speed
- Conservative and non-conservative force, conservation of energy
- Collision and impulse
- Torque and conservation of angular momentum

Unit 4: Simple Harmonic Motion

3

Learning Outcomes

At the end of this unit learners will be able to

- explain concepts of oscillatory motion
- combine Simple Harmonic Motions (SHM)
- analyse Lissajou's figure, angular simple harmonic oscillator, two body oscillators, damped SMH, and forced oscillations
- apply the concept of SHM to analyze oscillatory phenomena in nature

Content

- Periodic and oscillatory motion
- Simple Harmonic Motion (SHM)
- differential equation for SHM and its solution

- Energy in SHM
- Combination of SHM
- Lissajous figures
- An angular simple harmonic oscillator
- Energy in SHM
- Two body oscillators
- Damped SHM, forced oscillation and resonance

Unit 5: Gravitation

3

Learning Outcomes

At the end of this unit learners will be able to

- explain concepts related to Newton's law of gravitation
- analyse their experience related to acceleration due to gravity
- explain the motion of planets and satellites
- analyse real-life phenomena with the help of concepts of gravitation

Content

- Newton's law of gravitation in vector form
- Inertial and Gravitational mass
- Gravitation near earth surface
- Gravitation inside earth
- Effect of spherical distribution of mass
- Gravitational potential energy
- Planets and satellites: Kepler's laws, orbits and energy

Unit 6: Waves and Sound

3

Learning Outcomes

At the end of this unit learners will be able to

- explain their observations related to waves and sound
- derive general differential equation that govern traveling waves of all types
- analyse sound related real-life phenomena with mathematical equations and graphs

Content

- Waves in surroundings
- Types of Waves: Transverse and Longitudinal
- Wave equation
- Energy and power of a waves
- Standing waves and resonance
- Sound waves
- Beats
- The Doppler effect
- Supersonic speeds, shock waves

Unit 7: Elasticity

03

Learning Outcomes

At the end of this unit learners will be able to

- a. explain elastic properties of materials
- b. analyse various real-life phenomena related to elastic properties of matter

Content

- Elasticity: Stress and Strain, Hooke's Law
- Work in deforming a body
- Twisting couple on a cylinder (or Wire)
- Bending beams and bending moments
- Cantilever: Depression due to loaded uniformly and with weight

Unit 8: Viscosity

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain viscous properties of materials
- b. analyse various real-life phenomena related to viscous properties of matter

Content

- Stream line motion and equation of continuity
- Energy of a liquid in motion
- Bernoulli's theorem and its practical applications
- Torricelli's theorem
- Concept of viscosity
- Terminal Velocity
- Poiseuille's method for coefficient of viscosity

Unit 9: Surface Tension

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of surface tensions
- b. apply theorem and principles to analyze the phenomenon related to surface tensions
- c. analyse real-life phenomena with the help of the concept of surface tensions

Content

- Surface tension, surface energy and free energy
- Angle of contact
- Pressure difference across a liquid surface, excess pressure
- Curvature, pressure and surface tension
- Shape of liquid and meniscus in a capillary tube
- Surface tension of mercury

B. Practical Works

10

Learning Outcomes

At the end of this unit learners will be able to

- apply concepts, principles and laws of mechanics, waves and properties of matter in conducting related investigations
- demonstrate investigations skills to design the experiment and collect, analyse and evaluate data regarding the concept of mechanics, waves and properties of matter
- value empirical evidence in generating and supporting concepts related to mechanics, waves and properties of matter
- value scientific inquiry and demonstrate reliability, open-mindedness, skepticism and intellectual honesty

List of Experiments: (Students will perform at least five experiments)

- Demonstration and analysis of the combination of harmonic motion with the help of Lissajous figure using cathode ray oscilloscope
- Determination of the acceleration due to gravity 'g' by a compound pendulum
- Determination of the acceleration due to gravity 'g' by a Kater's pendulum
- Determination of the Young's modulus and rigidity modulus of a wire by Searle's dynamic method
- Determination of the rigidity modulus of the material of a wire by static method
- Determine of the modulus of rigidity of the material of a wire by the method of oscillations (Dynamic method)
- Determination of the spring constant and effective mass of a given spiral spring and calculation of the rigidity modulus of the material of the spring
- Determination of the surface tension of water by capillary tube method
- Determination of the surface tension and angle of contract of mercury by Quinker's method
- Analysis of the transverse vibration of a string and determination of the frequency of a tuning fork by Melde's experiment

6. Instructional Strategies

- Lecture
- Question-Answer
- Guided Discussion
- Group Works
- Investigation
- Assignment

7. Assessment

- One In-course Examination $15 \times 1 = 15$
- Semester Final Examination (MCQ + Essay) $20+40 = 60$
- Practical Examination 25

(Class Performance-05 Marks, Report-05 Marks, Examination-10Marks, Viva Voce-05 Marks)

8. Recommended Books, Journals and Reports

Ahmed, G. & Shahabuddin, M. (2015). Practical Physics. Hafiz Book House.
Benson, H. (1996). University physics. John Wiley & Sons, Inc.
French, A. P. (1971). Vibration and Waves. W. W. Norton & Company.

- Halliday D., Resnick R. & Walker J. (2014). *Fundamentals of Physics-extended* (10th ed). John Wiley & Sons, Inc.
- Nave, C. R. (2005). Hyperphysics. Georgia State University.
- Resnick, R. & Halliday, D. (1960). *Physics Part-I* (2nd ed.). John Wiley & Sons, Inc.
- Serway, R. A. (1986). *Physics for Scientists & Engineers with Modern Physics*. Philadelphia: Saunders College Pub.
- Spiegel, M. R. (1974). *Schaum's outline of theory and Problems of Vector Analysis and an Introduction to Tensor Analysis*, McGraw-Hill Inc.
- Young, H. D. & Freedman, R. A. (2015). *University Physics with Modern Physics*. (14th ed.). Pearson plc.
- Worsnop, B. L. & Flint, W. (1961). *Advanced Practical Physics*. Methuen & Company Ltd.
- রেসনিক, আর. ও হ্যালিডে, ডি. (অনুবাদ অজয় রায় প্রমুখ), (১৯৮৮) পদার্থবিদ্যা, ১ম খন্ড, ঢাকা, বাংলা একাডেমী।

1. Course Number: ACS 322

Course Title: Physics-Two: Heat, Thermodynamics and Optics

2. Credit Hours: 4

3. Course Description

This is an elementary Physics course covering the laws and phenomena in thermodynamics, waves and optics. Therefore, this course explores two basic areas of radiant energy, namely Heat and Light. Heat and thermodynamics part of this course deals with heat, work, energy, temperature, entropy, heat engines, and the basic laws of thermodynamics. It explains consistently many of the natural processes related to the thermal phenomena, including the thermodynamics of life processes inside a single living cell to the behaviour of the expanding universe. Like heat, light is also radiant energy, but with different behaviour and pattern of interactions with materials and living objects, therefore, having different emphasis and styles of experimentation. The Optics-part of this course focuses on wave optics, Huygens' and Fermat's principle, and the phenomena depicting the wave nature of light such as interference, diffraction and polarization. Scopes of multitudes of hands-on experiments, practical works, and demonstrations of physical principles crafting the theory and daily life observations on heat, thermodynamics and wave nature of light have been provided to enhance the curiosity of the learner about nature and natural phenomena as well as heat and optics related science of everyday-events.

4. Course Objectives

The objectives are to help learners to

- a. gain a comprehensive knowledge of the concepts, theory and principles of heat, thermodynamics and optics.
- b. analyse natural phenomena and everyday events with the concepts of heat, thermodynamics and optics.
- c. demonstrate skills and abilities needed to conduct investigations on the phenomena related to heat, thermodynamics and optics.
- d. acquire attitude and values inherent to studying radiant energy such as heat and light.
- e. develop an attitude to explain everyday-event with the help of the concept of heat, thermodynamics and optics.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Temperature and the Zeroth Law of Thermodynamics

3

Learning Outcomes

At the end of the unit learners will be able to

- a. explain the concepts of microscopic and macroscopic descriptions of a system
- b. explain thermal equilibrium and the zeroth law of thermodynamics
- c. define temperature in terms of the zeroth law of thermodynamics
- d. explain principle of measuring temperature
- e. correlate asymmetry of the potential energy curve with the expansion of solid

Content

- Thermodynamic system and environment
- Macroscopic and microscopic description of a system
- Thermal equilibrium-the zeroth law of thermodynamics
- Measuring temperature
- Expansion of solids

Unit 2: Heat, Internal Energy and the First Law of Thermodynamics

3

Learning Outcomes

At the end of the unit learners will be able to

- describe the historical background of the emergence of the concept-‘heat as a form of energy’
- explain the temperature dependence of the specific heat and molar heat capacities
- explain the mechanical equivalent of heat
- explain that the heat (Q) and the work (W) depend on the path, but the quantity $Q-W$ is independent of the path in the p - V diagram
- explain the internal energy and the first law of thermodynamics
- use the p - V diagram to calculate the change in internal energy and work for isothermal, isobaric and isochoric processes
- apply the first law of thermodynamics to explain the changes happening in nature

Content

- Heat, a form of energy
- Quantity of heat and specific heat
- Molar heat capacities of solids
- The mechanical equivalent of heat
- Heat and work
- The first law of thermodynamics
- Applications of the first law of thermodynamics

Unit 3: Kinetic Theory of Gases

4.5

Learning Outcomes

At the end of the unit learners will be able to

- describe the notions of thermodynamics, statistical mechanics and kinetic theory
- give the kinetic interpretation of pressure, temperature and internal energy
- explain intermolecular force and energy
- derive relation among molar heat capacities using the kinetic theory of gases
- explain degrees of freedom and equipartition of energy
- justify the experimentally determined values of molar heat capacities using the modified kinetic theory due to Clausius
- derive an expression for the mean free path of a system of gas molecules
- interpret the distribution of molecular speeds of a system of gas molecules
- explain Brownian motion with the help of kinetic theory of gases
- explain the van der Waals equation of state

Content

- Thermodynamics, statistical mechanics and kinetic theory
- pV diagram for constant pressure and constant volume processes
- Kinetic interpretation of pressure, temperature and internal energy
- Intermolecular forces
- derive the molar heat capacities of ideal gas using kinetic theory
- Modification of kinetic theory, degrees of freedom and equipartition of energy
- Mean free path and distribution of molecular speeds
- Brownian motion
- The van der Waals equation of state

Unit 4: Entropy and the Second Law of Thermodynamics

4.5

Learning Outcomes

At the end of the unit learners will be able to

- a. identify that many thermodynamic phenomena, allowed to occur by the first law of thermodynamics, never occur in nature
- b. explain reversible and irreversible processes
- c. apply concept of Carnot's cycle to understand the energy conversion process in heat engine
- d. explain second law of thermodynamics
- e. explain Carnot's theorem of heat engine
- f. identify entropy as a state variable of a thermodynamical system
- g. calculate the change of entropy for the reversible and irreversible processes
- h. correlate entropy with the second law of thermodynamics
- i. explain the disorder in nature in terms of entropy
- j. apply the concept of entropy to understand the thermodynamics of the life process inside living cells

Content

- Reversible and irreversible processes
- The Carnot cycle
- The Second law of thermodynamics
- The efficiency of engines
- Entropy of reversible and irreversible process
- Entropy and the second law of thermodynamics
- Life is an unequilibrium state of living object
- Entropy and the irreversibility of life processes inside living cell
- Entropy and disorder

Unit 5: Thermodynamic Functions, Nernst Heat Theorem: The Third Law of Thermodynamics 3

Learning Outcomes

At the end of the unit learners will be able to

- a. explain the concept of enthalpy, Helmholtz and Gibb's free energy function

- b. derive Maxwell's thermodynamical relations
- c. explain the third law of thermodynamics
- d. explore unattainability of absolute zero temperature
- e. explain entropy of a system at absolute zero.
- f. describe Saha's equation

Content

- Enthalpy, Helmholtz functions and Gibb's functions
- Maxwell's thermodynamic relations
- Internal energy equations
- Third law of thermodynamics
- Max Planck, Einstein and Nernst formulation of third law
- Saha's equation

Unit 6: Interference of light

3.0

Learning Outcomes

At the end of the unit learners will be able to

- a. comprehend the basic concepts of interference
- b. identify the limitations of corpuscular theory to explain the interference of light
- c. give reasoning that light is wave as interference occurs with light
- d. derive mathematical expression for the intensity distribution in the Young's experiment
- e. calculate the change of phase of light wave due to reflection
- f. explain interference related natural phenomena
- g. analyze interference in thin films and Newton's rings
- h. identify that rainbows are examples of optical interference

Content

- Light as a wave
- Interference
- Conditions of interference
- Young's experiment
- Intensity distribution
- Change of phase due to reflection
- Interference in thin films
- Newton's rings

Unit 7: Diffraction of Light

3.0

Learning Outcomes

At the end of the unit learners will be able to

- a. describe the diffraction of light by a narrow opening and an edge, and the resulting interference pattern
- b. explain that diffraction of light establishes the wave nature of light

- c. sketch the diffraction pattern for monochromatic light, identifying what lies at the center and what the various bright and dark fringes are called
- d. calculate the intensity distribution due to single and multiple slit Fraunhofer diffraction
- e. apply the grating spectra, dispersive and resolving power of a grating in real life phenomenon
- f. apply X-ray diffraction to study the arrangements of atoms in crystals

Content

- Diffraction of light and its classifications
- Single slit diffraction
- Fraunhofer diffraction at double slit
- Multiple slit diffraction and grating
- Dispersive and resolving power of a grating
- X-ray diffraction and Bragg's Law

Unit 8: Polarization of Light

3.0

Learning Outcomes

At the end of the unit learners will be able to

- a. distinguish between polarized light and unpolarized light
- b. sketch representations of polarized light and unpolarized light in figures and graphs
- a. explain that polarization of light establishes transverse nature of light
- b. identify sources of polarized light in everyday life around us
- c. write mathematical expressions for various polarized states of light
- d. explain that the combination of two linear polarized light yields linear, elliptical or circular polarized light
- e. explain that light can be polarized by reflection or scattering
- f. identify that polarization is used in cameras, sunglasses, holographic techniques and in material science to characterize materials
- g. design experiment to produce polarized light
- h. identify effect of polarized light in the natural phenomena occurring around us

Content

- Polarization
- Polarization sheet
- Production of polarized light
- Plane, circular and elliptically polarized light
- Polarization due to reflection and scattering
- Optical activity

Unit 9: Laser

3.0

Learning Outcomes

At the end of the unit learners will be able to

- a. describe various properties of laser

- b. explain the basic principle of laser: stimulated absorption, spontaneous emission, stimulated emission
- c. explain population inversion and optical pumping
- d. describe three and four level laser
- e. apply theory of laser to explain the working principle of Helium-Neon laser
- f. evaluate the scope of the applications of laser in health science and real life

Content

- Properties of laser
- Basic principles of laser
- Stimulated absorption, spontaneous and stimulated emission
- population inversion and optical pumping
- Three and four level laser
- Helium-Neon laser
- Application of laser

B. Practical Works

10

Learning Outcomes

At the end of this unit learners will be able to

- a. apply concepts, principles and laws of heat, thermodynamics and optics in conducting investigations
- b. demonstrate investigation-skills to design experiment and collect, analyse and evaluate data regarding the concept of heat, thermodynamics and optics
- c. value empirical evidence in generating and supporting concepts related to heat, thermodynamics and optics
- d. value scientific inquiry and demonstrate reliability, open-mindedness, scepticism and intellectual honesty

List of Experiments: (Students will perform at least five experiments)

1. Determination of the specific heat of a liquid by the method of cooling
2. Determination of the thermal conductivity of a bad conductor by Lee and Chorlton's method
3. Determination of the specific heat of a solid by the method of mixture with radiation correction
4. Determination of the value of J, mechanical equivalent of heat by electrical method
5. Determination of the refractive index of a liquid by plane mirror and pin method using a convex lens
6. Determination of the refractive index of the material of a convex lens by a telescope and spherometer
7. Determination of the refractive index of the material of a prism
8. Experiments on the interference of light using Michaelson's interferometer
9. Determination of the radius of curvature of a lens from the Newton's ring interference pattern
10. Determination of the wavelength of monochromatic light from the Newton's ring interference pattern
11. Determination of optical activity of sugar solution by means of a polarimeter

6. Instructional Strategies

- Lecture
- Question-answer
- Guided discussion
- Group works
- Investigation
- Assignment

7. Assessment

- | | |
|---|--------------|
| a. One In-course Examination | 15 × 1 = 15 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Practical Examination | 25 |
- (Class performance-05 marks, report-05 marks, examination-10 marks, viva voce-05 marks)

8. Recommended Books, Journals and Reports

- Ahmed, G., & Shahabuddin, M. (2015). *Practical Physics*, Hafiz Book House.
- Atkins, P. (2007). *Four Laws That Drive the Universe*. Oxford University Press.
- Atkins, P., & Paula, J. D. (2014). *Atkins' Physical Chemistry (10th ed.)*. Oxford University Press.
- Bernstein, J. (1988). *Kinetic Theory in the Expanding Universe*. Cambridge University Press.
- French, A. P. (1971). *Vibration and Waves (The M.I.T. Introductory Physics Series)*. W. W. Norton & Company.
- Ghatak, A. (2020). *Optics (7th ed.)*. McGraw Hill Education (India) Private Limited.
- Halliday, D., Resnick, R., & Walker, J. (2013). *Fundamentals of Physics (10th ed.)*. John Wiley & Sons, Inc.
- Hecht, E., & Ganssen, A. R. (2008). *Optics (4th ed.)*. Pearson plc.
- Hossain, T. (1969). *A Text Book of Heat*. Barnamala press & publication.
- Jencins, A. J., & White, H. E. (2001). *Fundamentals of Optics (4th ed.)*. McGraw-Hill Inc.
- Masanes, L., & Oppenheim, J. A. (2017). General derivation and quantification of the third law of thermodynamics. *Nat Commun*, 8. <https://doi.org/10.1038/ncomms14538>.
- Moran-Lopez, J. L. (2009). *Fundamental of Physics-Volume II*. EOLSS.
- Ornes, S. (2017). Core Concept: How nonequilibrium thermodynamics speaks to the mystery of life. *Proc Natl Acad Sci U S A*, 114(3), 423–424. <https://doi.org/10.1073/pnas.1620001114>.
- Resnick, R., & Halliday, D. (1960). *Physics Part-I & II*. John Wiley & Sons, Inc.
- Tolman, R. C. (2011). *Relativity, Thermodynamics and Cosmology*. Dover Publications.
- Saha, M. N., & Srivasta, B. N. (1958). *A Treatise ON Heat*. The Indian Press Private Ltd. <https://doi.org/10.1002/qj.49707833827>.
- Worsnop, B. L., & Flint, W. (1951). *Advanced Practical Physics (9th ed.)*. Methuen & Company Ltd.
- Zemansky, M. W., & Dittman, R. H. (1968). *Heat and Thermodynamics*. McGraw-Hill Inc.
- রবার্ট রেসনিক ও ডেভিড হ্যালিডে (অনুবাদ অজয় রায় প্রমুখ) (১৯৮৮), পদার্থবিদ্যা (১ম ও ২য় খণ্ড), ঢাকা: বাংলা একাডেমি।

1. Course Number: ACS 323**Course Title: Physics-Three: Electromagnetism****2. Credit Hours: 4****3. Course Description**

This course encompasses the basic theories, laws, principles, experimentations and applications of electromagnetism. Electromagnetism is the combination of electric and magnetic phenomena. Until the beginning of the 19th century, electricity and magnetism were treated as the separate area of knowledge-each having different contents, experimentations and applications. In the year 1820, Danish physicist and chemist Hans Christian Oersted observed that an electric current can produce a magnetic effect; thus the birth of the subject electromagnetism took place. Meanwhile, Faraday discovered that a moving magnetic pole can produce an electric current. The subject was further furnished by Ampere, Bio-Savart and many others. James Clark Maxwell synthesized all these phenomena mathematically and predicted that light is electromagnetic in nature. Thus the subject of electricity, magnetism, and optics merged into a single unified theory. This course intends students to give a firm understanding of how these great syntheses were occurring with the advent of time. The strength of electromagnetism - one of the four fundamental forces of nature - should be constant throughout the cosmos; thus it explores one of the fundamental laws of universe. The science of electromagnetism is the basis of computers, television, radio, telecommunications and even household lighting. Therefore, this course will help students to identify the applications of electromagnetism in communications and other many devices. Finally, the laboratory work of the related concepts will guide students to clarify their learning and also increase their interest to know and apply the concepts of electromagnetism in exploring and explaining the nature.

4. Course Objectives**The objectives of this course are to help learners to**

- help learners to develop an understanding of the concepts, fundamental laws and relations in electromagnetism.
- explore various aspects of integrating the concepts of electromagnetism in science education.
- acquire the skills and abilities needed to conduct investigations in electromagnetism.
- develop an attitude to analyse natural phenomena with the concept of electromagnetism.
- apply the concepts, laws and principles of electromagnetism to explain nature and natural phenomena.
- apply the concepts, laws and principles of electromagnetism to understand the high-speed electronics, telecommunications and photonic engineering.

5. Course Contents**Contact Hours****A. Theoretical****Unit 1: The Electric Field****3.0****Learning Outcomes**

At the end of this unit learners will be able to

- describe the background of the emergence of various laws of electromagnetism

- b. explain the interactions among charged objects with the help of Coulomb's law
- c. identify the limitation of 'action at a distance' view and evaluate the necessity of 'field view'
- d. comprehend the concept of electric field
- e. sketch an electric-field diagram for a single point charge, a dipole, or a collection of static-point charges
- f. calculate the electric field strength \mathbf{E} for various charge distribution
- g. determine the trajectory of a charged particle of specified charge and mass placed in a uniform electric field

Content

- Electromagnetism-a preview
- Coulomb's law
- Action at a distance view
- The electric field
- Electric field strength due to point charges
- Electric field strength due to the continuous charge distribution
- Charged particle in the electric field

Unit 2: Electric Potential

3.0

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of electric potential to describe the electrical environment around a charged object
- b. define electric potential with the knowledge of charge, force, work and electric field
- c. calculate the value of the electric potential in the vicinity of various charge distributions
- d. calculate the electrostatic potential energy of a collection of two or more point charges held in a static configuration
- e. describe the relative magnitude and direction of an electrostatic field given a diagram of equipotential lines
- f. explain that the electric field strength, \mathbf{E} is the directional derivative of electric potential

Content

- Electric potential
- Potential and field strength
- Potential due to point charges
- Potential due to continuous charged distribution
- Calculation of \mathbf{E} from \mathbf{V}
- Electric potential energy

Unit 3: Capacitor, Dielectrics and Gauss's Law

4.5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain electric flux and Gauss's law
- b. derive Coulomb's law from Gauss's law
- c. apply Gauss's law to calculate the electric field strength
- d. calculate capacitances for various types of capacitors
- e. explain how a dielectric inserted in between the plates of a capacitor will affect the properties of the capacitor

- f. derive Gauss's law in the presence of a dielectric
- g. explain the relation among three electric vectors
- h. explain the charging and discharging pattern of a capacitor in an RC circuit
- i. derive expressions for the density of energy stored in an electric field

Content

- Electric flux and Gauss's law
- Coulomb's law from Gauss's Law
- Gauss's law- some applications
- Capacitance, calculation of capacitance
- Parallel-plate capacitor with dielectric
- Atomic view of dielectric
- Gauss's law with dielectric
- Three electric vectors
- Charging and discharging of a capacitor, RC circuit
- Energy stored in the electric field

Unit 4: The Magnetic Field

4.5

Learning Outcomes

At the end of the unit learners will be able to

- a. comprehend the concept of magnetic field
- b. calculate the magnetic force on a current-carrying conductor placed in a magnetic field
- c. calculate the torque experienced by a current loop placed in a magnetic field
- d. explain the working principle of an electric motors
- e. apply the concept of the Hall effect to determine the sign of charge carrier
- f. describe the motion of a charged particle in a uniform magnetic field

Content

- The magnetic field and the definition of **B**
- Magnetic force on a current carrying conductor
- Torque on a current loop: working principle of electric motors
- The Hall effect
- Circulating charges in a magnetic field

Unit 5: Ampere's Law

4.5

Learning Outcomes

At the end of the unit learners will be able to

- a. explain the concept of Ampere's law
- b. sketch magnetic lines of induction for various current distribution
- c. calculate the force between two parallel current-carrying conductors
- d. describe how the magnetic field of an electric current can be used to create a magnetic field similar to that of a permanent magnet
- e. calculate B for a solenoid and toroid
- f. apply Biot-Savart law to calculate the magnetic field
- g. apply Biot-Savart law to calculate the rotational magnetic moment of the electron of a Hydrogen atom

Content

- Ampere's law
- **B** near a long wire
- Magnetic lines of induction
- Two parallel current-carrying conductors
- **B** for solenoid and toroid
- The Biot-Savart law
- A circular current loop
- Magnetic moment and Bohr model of hydrogen atom

Unit 6: Faraday's Law of Induction and Magnetic Properties of Matter

4.5

Learning Outcomes

At the end of the unit learners will be able to

- a. demonstrate Faraday's law of induction through hands-on experiments
- b. apply Lenz's law to determine the direction of induced voltage and current
- c. explain self and mutual inductance
- d. apply Faraday's law to explain the working principle of a transformer
- e. calculate inductance for solenoid, toroid and coaxial cable
- f. derive the expression for voltage and current of an LR circuit
- g. calculate the energy density in the magnetic field
- h. explain Gauss's law for magnetism
- i. identify that the orbital angular momentum and spin of atomic electrons, and the spin of nuclei is the origin of magnetism in materials
- j. explain the relation among three magnetic vectors

Content

- Faraday's law of induction
- Lenz's law
- Induction- a quantitative study
- Time- varying magnetic field
- Self and mutual inductance, transformer
- Calculation of inductance, LR circuit
- Energy density in the magnetic field
- Gauss's law for magnetism
- Origin of magnetism in materials: Paramagnetism, diamagnetism and ferromagnetism
- Three magnetic vectors

Unit 7: Alternating Current, Electromagnetic Oscillations and Maxwell's equations

6.0

Learning Outcomes

At the end of the unit learners will be able to

- a. explain LC oscillations qualitatively and quantitatively in analogy with block-spring oscillator
- b. identify the conditions for resonance and the effect of resonance on the current amplitude in a driven RLC circuit.
- c. apply Faraday's law to explain the working principle of a generator
- d. analyse each of the three basic **ac** circuits (purely resistive load, purely capacitive load, and purely inductive load)
- e. explain the symmetry of nature and induced magnetic fields

- f. explain Maxwell's equations and its prediction that light is electromagnetic in nature
- g. describe Hertz' demonstration of the production of electromagnetic disturbance
- h. describe the application of Maxwell's equations to understand the electromagnetic radiation in the environment and its usages in communications
- i. explain the relativity of electrodynamics

Content

- LC oscillations
- Damped and forced oscillations in an RLC circuit
- Electric generators and **ac** circuits
- Induced magnetic field and displacement current
- Maxwell's equations
- Plane wave solutions to Maxwell's equations
- Hertz Experiment
- Applications of Maxwell's equation
- Electrodynamics and relativity

B. Practical Works

10

Learning Outcomes

At the end of this unit learners will be able to

- a. apply concepts, principles and laws of electromagnetism in conducting investigations in electromagnetism
- b. demonstrate investigations skills to design experiments and collect, analyse and evaluate data regarding the concept of electromagnetism
- c. value empirical evidence in generating and supporting concepts related to electromagnetism
- d. value scientific inquiry and demonstrate reliability, open-mindedness, scepticism and intellectual honesty

List of Experiments: (Students will perform at least five experiments)

1. Determination of the value of low resistance by the method of fall of potential
2. Determination of the value of high resistance by the method of deflection
3. Determination of the value of a galvanometer's resistance by half-deflection method
4. Determination of the specific resistance of the material of a wire using a meter bridge
5. Comparison of the EMF's of two cells using a potentiometer
6. Determination of the capacitance of a condenser by studying the voltage current relationship of an ac- capacitor circuit
7. Study of the exponential relaxation time constant of an RC circuit

6. Instructional Strategies

- a. Lecture
- b. Question-answer
- c. Guided discussion
- d. Group works
- e. Investigation
- f. Assignment

7. Assessment

a. One in-course examination	15× 1 = 15
b. Semester final examination (MCQ + Essay)	20+40 = 60
c. Semester final practical examination	25
(Class performance-05 marks, Report-05 Marks, Examination-10Marks, Viva Voce-05 Marks)	

8. Recommended Books, Journals and Reports

- Ahmed, G., & Shahabuddin, M. (2000). *Practical Physics*. Hafiz Book House.
- Brackett, C. F. (2013). *Electricity in Daily Life: a Popular Account of the Applications of Electricity to Every Day Uses*. Book on Demand Ltd.
- Bertrand, R. (2019). *Radio Theory Handbook-Beginner to Advanced*. Independently published.
- French, A. P. (1980). *Vibrations and Waves (The M.I.T. Introductory Physics Series)*. W. W. Norton and Company
- Feynman, R. P., Leighton, R. B., & Sands, M. L. (2012). *The Feynman lectures on physics. Volume 2 (The new millennium ed.)*. Pearson
- Firstenberg, A. (2020). *The Invisible Rainbow: A History of Electricity and Life*. Chelsea Green Publishing.
- Freedman, R. A., Young, H. D., & Ford, A. L. (2010). *University Physics with Modern Physics*. Addison-Wesley-Longman.
- Griffiths, D. J. (2017). *Introduction to Electrodynamics*. Cambridge University Press.
- Halliday, D., Resnick, R., & Walker, J. (2015). *Fundamentals of Physics (10th ed.)*. John Wiley & Sons, Inc.
- Jackson, J. D. (1998). *Classical Electrodynamics*. John Wiley & Sons, Inc.
- Krishnasamy, T. S., & Warnick, F. K. (2021). *Teaching Electromagnetics: Innovative Approaches and Pedagogical Strategies*. CRC Press.
- Resnick, R., & Halliday, D. (1966). *Physics Part-II*. John Wiley & Sons, Inc.
- Worsnop, B. L., & Flint, W. (1971). *Advanced Practical Physics (2nd ed.)* Methuen & Company Ltd.
- এ. এম. হারুন অর রশিদ (১৯৯২), *চিরায়ত বিদ্যুৎ গতিবিদ্যা*, ঢাকা: বাংলা একাডেমি।
- রবার্ট রেসনিক ও ডেভিড হ্যালিডে (অনুবাদ অজয় রায় প্রমুখ) (১৯৮৮), *পদার্থবিদ্যা ২য় খণ্ড*, ঢাকা: বাংলা একাডেমি।

1. Course Number: ACS 324

Course Title: Physics-Four: Modern Physics

2. Credit Hours: 4

3. Course Description

This course will help learners to recognize and hope to acknowledge the contributions of the greatest scientists Newton, Planck, Einstein, Heisenberg, Currie and others. This course intends learners to identify the limitations of Classical Physics and the background of emerging Modern Physics and be familiar with the two pillars of Modern Physics, namely Relativity and Quantum Mechanics. Classical Physics works well in the realm of our sense perceptions, while Modern Physics deals with the phenomena occurring beyond our sense perception (very small scale and high velocity). Hence, the revolutionary ideas of Modern Physics will help students to compose the abstract image of the world beyond their sensible or observable domain. The course will also focus on the basic of Nuclear Physics, Particle Physics, Astronomy, Semi-Conductor Science and Superconductivity. The laboratory work of the related concepts will guide students to extend their learning and also increase their interest to know and apply science concepts in exploring and explaining the natural phenomena occurring around them.

4. Course Objectives

The objectives are to help learners to

- a. develop concepts, theory and principles about modern Physics.
- b. analyze different phenomena with the help of the concept of modern Physics.
- c. demonstrate skills and abilities needed to conduct investigation in modern physics.
- d. acquire attitude and values to interpret different phenomena with concept of modern Physics.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Relativity

06

Learning Outcomes

At the end of the unit learners will be able to

- a. identify the limitations while dealing with Galilean Transformation and Electrodynamics simultaneously
- b. analyze the observations and findings of Michelson-Morley experiment
- c. explain the reason of introducing Lorentz Transformation to explain the result of Michelson-Morley experiment
- d. explain the relativity of Time Interval, Length, Mass and the equivalence of the mass and energy
- e. apply the concepts of relativity in real world
- f. recognize the contribution of Albert Einstein in the Theory of Relativity

Content

- The experimental background of the Theory of Special Relativity
- Galilean Transformation and Newtonian Relativity

- Electrodynamics and Newtonian Relativity
- The Michelson–Morley experiment
- The postulates of Special Theory of Relativity
- Albert Einstein and the Theory of Relativity
- Relativistic kinematics-The relativity of simultaneity, time interval and length, velocity addition, the common sense and the special relativity
- Relativistic dynamics: relativity of momentum, mass, relativistic force law, the equivalence of mass and energy
- Experimental confirmation of Einstein’s theory
- Relativity and Electromagnetism
- the General Theory of Relativity-an introduction

Unit 2: Particle Properties of Wave

4.5

Learning Outcomes

At the end of the unit learners will be able to

- a. explain the limitation of classical Physics
- b. explain Plank Radiation formula
- c. describe Photoelectric effect and interpret its experimental result with Einstein’s photon theory
- d. explain the particle properties of light in the Compton effect
- e. explain pair production and pair annihilation

Content

- Electromagnetic waves
- Limitation of Classical Physics
- Blackbody radiation
- Photoelectric effect
- What is light?
- Einstein photon theory
- The Compton effect
- Pair production and pair annihilation
- Photon and gravity

Unit 3: Wave Properties of Particle

03

Learning Outcomes

At the end of the unit learners will be able to

- explain De Broglie’s wave-particle duality
- apply uncertainty principle in explaining the wave properties of particles

Content

- De Broglie waves
- Waves of what?

- Describing a wave
- Phase and group velocities
- Particle diffraction
- The uncertainty principle

Unit 4: Quantum Mechanics

4.5

Learning Outcomes

At the end of the unit learners will be able to

- explain time dependent and steady state Schrödinger's equation
- apply Schrödinger's equation to solve the problem of particle in a box, harmonic oscillator and hydrogen atom

Content

- Quantum Mechanics
- Schrödinger's equation: Time dependent form
- Linearity and superposition
- Expectation values
- Operators
- Schrödinger's equation: Steady-state form
- Application of Schrödinger's equation: particle in a box, harmonic oscillator and hydrogen atom

Unit 5: Nuclear Physics: Nuclear Structure and Transformation

03

Learning Outcomes

At the end of the unit learners will be able to

- explain nuclear properties
- describe different radioactive decays
- explain the phenomenon of nuclear fission and fusion

Content

- Nuclear composition
- Some nuclear properties
- Binding energy and separation energy
- Radioactive decay
- Nuclear reaction
- Nuclear fission and fusion

Unit 6: Introduction to Particle Physics and Astronomy

4.5

Learning Outcomes

At the end of the unit learners will be able to

- classify different interaction and particles
- explain Standard Model
- apply The Big Bang Model in explaining the origin of the universe

Content

- Interactions and particles: Leptons and Hadrons
- Elementary particle quantum numbers
- Quarks
- Field Boson
- Unification of forces
- Origin of the universe and The Big Bang
- Ultimate fate of the universe

Unit 7: Electronics

06

Learning Outcomes

At the end of the unit learners will be able to

- a. explain types and properties of semiconductor
- b. identify biasing of a diode and its I-V characteristics
- c. explain the working principle of a transistor
- d. explain the application of diode and transistor

Content

- Band Theory of Solid: conductor, semi-conductor and superconductor
- Types of semiconductor
- pn junction and its properties
- Semiconductor diode
- Biasing of a diode and its I-V characteristics
- Rectifiers and filters
- Zener diode
- Uses of LED
- Junction transistor: Structure, energy band and biasing
- How does a transistor amplify?
- Digital electronics: Number system and logic gates

B. Practical Work

10

Learning Outcomes

At the end of this unit learners will be able to

- a. apply concepts, principles and laws of modern physics in conducting related investigations
- b. demonstrate investigations skills to design the experiment and collect, analyse and evaluate data regarding the concept of modern physics
- c. value empirical evidence in generating and supporting concepts related to modern physics
- d. value scientific inquiry and demonstrate reliability, open-mindedness, skepticism and intellectual honesty

List of Experiments: (Students will perform at least five experiments)

1. Study of the frequency response characteristics of an RC low pass and RC high pass filter
2. Study of the oscillation dampening in an RLC circuit using an oscilloscope
3. Design and construction of a half-wave rectified power supply and study its characteristics
4. Design and construction of a full-wave rectified power supply and study its characteristics
5. Design and construction of a transistorized stabilized power supply and study its characteristics
6. Design and construction of the characteristics curve of a PN junction diode
7. Study of the Zener diode voltage regulation
8. Study of the static characteristics of a Transistor

6. Instructional Strategies

- a. Lecture
- b. Question-answer
- c. Guided discussion
- d. Group works
- e. Investigation
- f. Assignment

7. Assessment

- | | |
|---|--------------|
| a. One In-course Examination | 15 × 1 = 15 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Practical Examination | 25 |
- (Class Performance-05 Marks, Report-05 Marks, Examination-10 Marks, Viva Voce-05 Marks)

8. Recommended Books, Journals and Reports

- Beiser, A. (1995). Perspectives of Modern Physics (5th ed.). McGraw-Hill Education, Inc.
- Beiser, A. (2002). Concepts of Modern Physics (6th ed.). McGraw-Hill, Education, Inc.
- Dekker, A. J. (1981). Solid State Physics. New York: Macmillan Publishers Limited.
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- Harun-Or-Rashid, A. M. (1988). Quantum Mechanics. Dhaka: Dhaka University Press.
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- Merzbacher, E. (1961). Quantum Mechanics. New York: John Wiley & Sons, Inc.
- Malvino, A. P. (1998). Electronic Principles (6th ed.). New York: McGraw-Hill.
- Nave, C.R. (2005). Hyperphysics, Georgia State University. <http://hyperphysics.phy-astr.asu.edu/hbase/hframe.html>
- Powel, J. L. (2015). Quantum Mechanics. New York: Dover Publications.
- Resnick, R. & Halliday, D. (1978). Physics, Part II. John Wiley & Sons, Inc.
- Resnick, R. (1968). Introduction to Special Relativity. John Wiley & Sons, Inc.
- Thomas, L. F. (2003). Digital Fundamentals. London: Pearson Education Inc.

Worsnop, B. L. & Flint, W. (1971). Advanced Practical Physics (2nded.). London: Methuen & Company Ltd.

আজাদ, এইচ. (২০০০). মহাবিশ্ব. ঢাকা: আগামী প্রকাশনী।

ইকবাল, এম. জেড. (২০০৯). কোয়ান্টাম মেকানিক্স. ঢাকা: মাওলা ব্রাদার্স।

ইসলাম, জে. এন. (১৯৮৫). কৃষ্ণ বিবর. ঢাকা: বাংলা একাডেমি।

ভূঞা, জি. এম. (২০১৯). কোয়ান্টাম মেকানিক্স (তৃতীয় প্রকাশ). ঢাকা: মেট্রো পাবলিকেশন্স।

হারুন অর রশিদ, এ. এম. (----). বিশেষ আপেক্ষিক তত্ত্ব. ঢাকা: তিতাস পাবলিকেশন্স।

1. Course Number: ACS 331

Course Title: Chemistry - One: Physical Chemistry

2. Credit Hours: 4

3. Course Description

Chemistry is the branch of Science that study matter. This course on physical chemistry will acquaint learners with the macroscopic properties, properties of atoms and molecules, and phenomena in chemical systems. The course includes theoretical discussion on the topic - gaseous state, thermodynamics, kinetics and equilibrium, the liquid state, surface chemistry, colloids and electrochemistry. This course also includes practical activities that will give learners scope to gain investigation skills as well as to strengthen their theoretical understanding of related Chemistry concepts.

4. Course Objectives

The objectives are to help learners to

- understand concepts, principles and laws of physical chemistry.
- apply concepts and principles of physical chemistry to new situations; and
- demonstrate skills and abilities needed to conduct investigations in Physical Chemistry.
- acquire attitude and values inherent to studying matter.

5. Course Contents

Contact Hours

A: Theory

Unit 1: Chemistry as an integral part of Science and Science Education

3

Learning Outcomes

At the end of this unit learners will be able to

- explain what Science is
- describe scopes of Chemistry
- rationale of studying Chemistry as part of Science and Science Education

Content

- Science as an inquiry to the Nature
- What is Chemistry?
- Scopes of Chemistry
- Rationale of studying Chemistry as part of Science and Science Education

Unit 2: States of Matter

3

Learning Outcomes

At the end of this unit learners will be able to

- explain how states of any matter are dependent on intermolecular forces
- compare general properties of Gases, Liquids and Solids
- explain changes of states with phase diagram

Content

- Intermolecular forces and states of matter
- General properties of gases, liquids and solids
- Heat of vaporization of liquids, Heating and cooling curves, phase equilibria, phase diagram
- Change of state, sublimation, fusion and vaporization

Unit 3: Gaseous State

3

Learning Outcomes

At the end of this unit learners will be able to

- explain how matters behave in gaseous state with the help of different gas laws
- describe how kinetic theory of gases explains behaviors of gases
- apply Joule-Thomson effect in explaining cooling of gases including Liquefaction of Gases

Content

- The gas laws and the ideal gas, Dalton's law of partial pressure, Deviation from ideal behavior- Real Gases, Vander Waal's equation
- Kinetic theory of gases
- Critical phenomena, Joule-Thomson effect, Liquefaction of gases
- Determination of molecular weights of gases and volatile liquids

Unit 4: Solutions

3

Learning Outcomes

At the end of this unit learners will be able to

- exemplify different types of solutions
- explain how Temperature and Pressure affect solubility
- apply principles of colligative properties in explaining how dialysis and desalination work

Content

- Types of solutions, concentration of solution, concentration units
- Heat of solutions, solubility and temperature, Effect of temperature on dissolved Oxygen. Thermal pollution
- The effect of pressure on Solubility-application in preparation of carbonated beverages. Henry's law
- Vapor pressure of solutions, Raoult's law, Fractional distillation, colligative properties, osmotic pressure of electrolytic solution, Dialysis, application of dialysis, artificial kidney, reverse osmosis- application in desalination

Unit 5: Chemical Thermodynamics

3

Learning Outcomes

At the end of this unit learners will be able to

- explain thermodynamics systems and its related law
- illustrates concepts of free energy and entropy changes of system

Content

- Thermodynamic systems. First law of thermodynamics
- Laws of thermochemistry, Bond energy and bond dissociation, Heats of reaction, Heats of formation, Heats of solution and Heats of neutralization, Chemical energy, Heat capacities, Kirchhoff's equation
- Second law of Thermodynamics, Reversible & irreversible, isothermal and adiabatic processes
- Concepts of free energy and entropy changes of systems

Unit 6: Chemical Kinetics

3

Learning Outcomes

At the end of this unit learners will be able to

- explain and determine rate of chemical reaction and related matters
- logically determine activation energy and effect of temperature on the rates of reactions
- explain catalysis and its importance in industrial production

Content

- Rate of a chemical reaction, Rate constant. Order, molecularity and examples of reactions of various orders and molecularity
- Rate expressions, integrated rate laws, half life
- Activation energy, Effect of temperature on the rates of reactions, Catalysis. Importance of catalysis in industrial production

Unit 7: Chemical Equilibrium

3

Learning Outcomes

At the end of this unit learners will be able to

- critically explain equilibrium in Chemical reactions, law of mass action, equilibrium constant, degree of dissociation
- discuss the influence of temperature, pressure and concentration changes on the equilibrium, Le Chatelier principle
- apply Le Chatelier principle in industry

Content

- Equilibrium in Chemical reactions. Law of mass action. Equilibrium constant. Degree of dissociation
- The influence of temperature, pressure and concentration changes on the equilibrium, Le Chatelier principle, Applications of Le Chatelier principle in industrial production

Unit 8: Aqueous Equilibrium

3

Learning Outcomes

At the end of this unit learners will be able to

- briefly discuss about acids, bases and their dissociation
- apply acid-base titration and calculate pH value in titration
- explain mechanism of buffer solution
- calculate pH of a buffer solution

Content

- Ion product of water, Dissociation and strength of acids and bases, Dissociation constant of acid and bases, Ostwald's dilution Law, pH, Calculation of solution's pH
- Acid -base titration, Indicators, Titration curve, Calculations of pH in titration, Buffer solution, mechanism of buffering, pH of a buffer solution. Solubility product, Application in group separation

Unit 9: Surface Chemistry and Colloids

3

Learning Outcome

At the end of this unit learners will be able to

- explain solid surfaces and different types of adsorption on solid surfaces
- classify colloids and explain the purification, properties and importance of colloids

Content

- Solid surfaces & their characterization
- Adsorption on solid surfaces, Adsorption on solid Surfaces from gas and solution
- Classification of Colloids, Preparation, purification, properties and importance of colloids

Unit 10: Electrochemistry

3

Learning Outcome

At the end of this unit learners will be able to

- a. explain and categorize electrolytes and non-electrolytes
- b. analyze electrochemical cells, batteries, cell reactions, e.m.f. of cells and their measurements
- c. explain Nernst equation and Potentiometric titration of redox reaction

Content

- Electrolytes and non-electrolytes, Metallic and Electrolytic conduction, Conductance measurements and their simple applications
- Ionic migration and transference number
- Electrochemical cells, batteries, cell reactions, e.m.f. of cells and their measurements. Nernst equation, Potentiometric titration of redox reaction

B. Practical

10

Learning Outcomes

At the end of this unit learners will be able to

- a. apply concepts, principles and laws of Physical Chemistry in conducting investigations
- b. demonstrate investigations skills (includes skills related to design, conduct, analyse data and evaluate) in conducting investigations in Physical Chemistry
- c. value empirical evidence in generating and supporting Chemistry concepts
- d. value scientific inquiry and demonstrate inquisitiveness, open-mindedness, skepticism and intellectual honesty

Content

- Determination of molecular weight of a volatile liquid by Dumas method
- Determination of heat of solution of a solid calorimetrically
- Determination of heat of neutralization of a strong acid by strong alkali calorimetrically
- Determination of equilibrium constant K_c of the equilibrium $KI + I_2 \leftrightarrow KI_3$
- Determination of partition coefficient of iodine between water and dichloromethane
- Standardization of potassium permanganate solution with standard sodium oxalate solution
- Determination of ferrous ion in a solution by standard $KMnO_4$ solution
- Standardization of NaOH solution with standard oxalic acid solution
- Investigation of the effect of reactant concentration on the rate of reaction between thiosulphate ion and H^+ ion and determination of the order of reaction

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Problem solving
- e. Investigation

7. Assessment

a. In-course Examination	15
b. Semester Final Examination	60
c. Practical Examination	25

8. Recommended Books, Journals and Reports

- Atkins, P. W. (1990). *Physical Chemistry* (4th ed.). Freeman.
- Atkins, P. W., Julio, D. P., & Keeler, J. (2018). *Physical Chemistry* (11th ed.). Oxford University Press.
- Alberty, R. A., & Daniels, F. (1979). *Physical Chemistry* (5th ed.). John Wiley and Sons Ltd.
- Bewick, S., Parsons, R., Forsythe, T., Robinson, S., Dupon, J. Alviar-Agnew, M. & Agnew, H. (2019). *The Scope of Chemistry*, The LibreTexts Libraries. https://chem.libretexts.org/Courses/College_of_Marin/CHEM_114%3A_Introductory_Chemistry/01%3A_The_Chemical_World/1.01%3A_The_Scope_of_Chemistry
- Castellan, G. W. (1971). *Physical Chemistry* (2nd ed.). Addition-Wesley.
- Duffey, G. H. (2000). *Modern Physical Chemistry: A Molecular Approach*. Springer.
- Ebbing, D., & Gammon, S. D. (2016). *General Chemistry* (11th ed.). Cengage Learning.
- Glasstone, S. (1948). *Textbook Of Physical Chemistry* (2nd ed.). De Van Nostrand co. Inc.
- Haque, M. M., & Nawab, M. A. (2005). *Principles of Physical Chemistry* (Rev. ed.). Nawab Publications.
- Zumdahl, S. S., Zumdahl, S. A., & DeCoste, D. J. (2017). *Chemistry* (10th ed.). Cengage Learning.

1. Course Number: ACS 332

Course Title: Chemistry-Two: Organic Chemistry

2. Credit Hours: 4

3. Course Description

This course will acquaint pupil with different terms, facts, concepts, principles, laws in Organic Chemistry and their application for improving human life. It includes topic such as bonding and structures, preparation, properties and. uses of organic compounds such as aliphatic hydrocarbons, aromatic compounds, alcohol and phenols, alkyl halides, aldehydes and ketones, carboxylic acids and their derivatives.

4. Course Objectives

The objectives are to help learners to

- gain a comprehensive knowledge on the preparation, properties and uses of different organic compounds.
- apply concepts and principles of organic chemistry to new situations.
- demonstrate skills and abilities needed to conduct experiments on organic chemistry.
- acquire attitude and values inherent to studying organic Chemistry.

5. Course Contents

Contact Hours

A: Theory

Unit 1: Atomic Structure and Bonding in Organic Compounds

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the structural and bonding phenomena of organic compounds
- sketch out different features of different orbitals and their hybridization
- discuss the nature of bond lengths, bond angles, bond energies and polarity of bond
- explain the basic mechanisms of reactions of organic compounds

Content

- Bonding and structure in organic compounds, Orbitals and their hybridization, Shapes of molecules, Polarity of bond. Bond lengths, bond angles and bond energies, Fundamentals of organic reactions and their mechanism

Unit 2: Aliphatic Hydrocarbons

9

Learning Outcomes

At the end of this unit learners will be able to

- explain the phenomena of saturated and unsaturated hydrocarbons (Alkane, Alkene, Alkyne) with respect to their nature, structure, features and uses
- differentiate among and between different types of hydrocarbons in many aspects
- value the resource of natural gas in Bangladesh
- illustrate different reactions and describe their mechanisms in Aliphatic hydrocarbons

Content

(a) Saturated hydrocarbons: Alkanes

Structure, nomenclature, preparation, properties and uses, reactions of alkanes; Mechanism of halogenations reaction; Petroleum refining, Petro-chemicals; Natural gas in Bangladesh: composition, refining, uses, CNG

(b) Unsaturated hydrocarbons

(i) Alkenes

Orbital picture of double bond, Nomenclature, Preparation, Properties and uses. Electrophilic addition reactions and their mechanism, Geometric isomerism

(ii) Alkynes

Orbital picture of triple bond, Nomenclature, preparation, properties and uses, oxyacetylene flame

Unit 3: Aromatic Hydrocarbons

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the general features and properties of Aromatic hydrocarbons
- illustrate different reactions and describe their mechanisms in Aromatic hydrocarbons

Content

- Aromaticity and delocalization in benzenes, pyrroles, furan and thiophene. Sources of benzene and other aromatic compounds. Electrophilic substitution in aromatic compounds: nitration, sulphonation, halogenation, alkylation and acylation

Unit 4: Halogen Derivatives of Alkane and Benzene

3

Learning Outcomes

After completion of this unit students will be able to

- discuss the properties, uses and methods of preparations of Halogen derivatives of alkane and benzene
- illustrate different reactions and describe their mechanisms in Halogen derivatives of alkane and benzene

Content

- Halogen Derivatives of Alkane and Benzene: Nomenclature, General methods of preparations, Properties and Uses. Nucleophilic Substitution and Elimination reaction

Unit 5: Alcohols and Ethers

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the properties, uses and sources of Alcohols and ethers
- compare between industrial and laboratory preparations of Alcohols and Ethers

Content

- Alcohol and Ethers: Sources, Nomenclature, Industrial and Laboratory Preparations, Properties and Uses

Unit 6: Aldehydes and Ketones

3

Learning Outcomes

At the end of this unit learners will be able to

- discuss the properties, uses and methods of preparations of Halogen derivatives of Aldehydes and Ketones
- differentiate between aldehydes and ketones in terms of their nomenclature, preparations and uses

Content

- Aldehyde and ketone: Nomenclature, Carbonyl group, General methods of Preparations, Properties and Uses

Unit 7: Carboxylic Acids and their Derivatives

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the nomenclature, properties and uses of carboxylic acids and their derivatives
- describe the preparation methods of carboxylic acids and their derivatives

Content

- Nomenclature, Preparations, Properties and Uses of carboxylic acids and their derivatives

Unit 8: Study of Some Aromatic Compounds

3

Learning Outcomes:

At the end of this unit learners will be able to

- explain the fundamental features of different Aromatic compounds (Phenols, alkyl derivatives of benzene, Aniline, Diazonium salts, Azo dye)
- describe the uses of Azo dye in textile industry

Content

- Phenols, alkyl derivatives of benzene, Nitro benzene, Aniline, Diazonium salts, Azo dye, Uses of azo dye in Textile industry

B: Practical

Learning outcome

At the end of this unit learners will be able to

- apply concepts, principles and laws of Organic Chemistry in identifying organic compounds and their functional groups
- demonstrate investigations skills (includes skills related to design, conduct, analyse data and evaluate) in conducting investigations in Physical Chemistry
- value empirical evidence in generating and supporting Chemistry concepts
- value scientific inquiry and demonstrate inquisitiveness, open-mindedness, skepticism and intellectual honesty

Content

(i) Simple Laboratory techniques:

- Determination of melting points and mixed melting points
- Purification of organic compounds by recrystallisation
- Determination of boiling point
- Purification by distillation

(ii) Identification of simple organic compounds containing one functional group in the following compounds:

- I-Butanol, 2-butanol, 2-methyl-2-propanol, phenol, propanone, acetophenone, benzophenone, methanal, ethanal, benzaldehyde, methanoic acid, ethanoic acid, benzoic acid, phenyl amine, phenyl methyl amine, diphenyl amine, nitrobenzene, dichlorobenzene, urea and naphthalene

Tests for Identification of Organic Compounds

- detection of elements (N, S and halogen) in organic compounds
- solubility test with water, 5% aqueous sodium hydrogen carbonate, sodium hydroxide, hydrochloric acid, conc. sulfuric acid
- detection of common functional groups: 1^o, 2^o and 3^o –OH, Phenolic –OH, –CHO, >CO, –COOH, Diazonium group

Synthesis of organic compounds

- Synthesis of Acetanilide

6. Instructional Strategies

- Lecture
- Discussion
- Group work
- Problem solving
- Practical work

7. Assessment

- | | |
|-------------------------------|----|
| a. In-course examination | 15 |
| b. Semester final examination | 60 |
| c. Practical Examination | 25 |

8. Recommended Books, Journals and Reports

- Ahmad, W., & Joshi, H. C. (2017). *A Simplified Text Book of Organic Chemistry*. Lambert.
- Bahl, A., & Bahl, B. S. (2010). *Advanced Organic Chemistry*. S. Chand & Co. Ltd.
- Bruice, P. Y. (2016). *Organic Chemistry* (8th ed.). Pearson.
- Clayden, J., Greeves, N., & Warren, S. (2012). *Organic Chemistry* (2nd ed.). Oxford University Press.
- Housecroft, C. E., & Constable, E. C. (2010). *Chemistry: An Introduction to Organic, inorganic and Physical Chemistry* (4th ed.). Prentice Hall.
- Klein, D. (2016). *Organic Chemistry as a Second Language*. (4th ed.). Wiley.
- Morrison, R. T., & Boyd, R. N. (1992). *Organic Chemistry* (6th ed.). Prentice Hall.
- Smith, M. B., & March, J. (2006). *March's Advanced Organic Chemistry: Reactions, Mechanisms and Structure*. Wiley.
- Solomons, T. W. G., Fryhle, C. B., & Snyder, S. A. (2016). *Organic Chemistry* (12th ed.). Wiley.
- Wade, L. G., & Simek, J. W. (2016). *Organic Chemistry* (9th ed.). Pearson.

1. Course Number: ACS 333

Course Title: Chemistry - Three: Inorganic Chemistry

2. Credit Hours: 4

3. Course Description

The Course of Inorganic Chemistry will acquaint pupil with different concepts, principles, laws and their applications related to Inorganic Chemistry. This course includes atomic structure, periodic classification, classification of chemical reactions, Acids and Bases as well as group elements chemistry, transition element chemistry and introductory nuclear chemistry.

4. Course Objectives

The objectives are to help learners to

- understand concepts, principles and laws of inorganic chemistry.
- apply concepts and principles of inorganic chemistry to new situation.
- demonstrate skills and abilities needed to conduct experiments of inorganic Chemistry.
- acquire attitude and values inherent to studying inorganic Chemistry.

5. Course Contents

Contact Hours

A: Theory

Unit 1: Atomic Structure

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept of atomic structure, quantum numbers and different types of orbitals
- apply Pauli exclusion principle and Aufbau principle
- differentiate between Rutherford and Bohr's atom model
- identify the electronic configuration of elements
- explain the basics about the wave nature of electrons

Content

- Modern concept of atomic structure- electron, proton and neutron. Rutherford atom model
- Bohr's atom model; Quantum numbers, Pauli Exclusion Principle; Types of orbitals, electronic configuration of elements, Aufbau principle; Elementary idea about the wave nature of electrons

Unit 2: Periodic Classification of Elements

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the evolution and construction of modern periodic table
- explain the basis of periodic classifications
- discuss the Variation of properties along a period and down a group

Content

- History of the development of modern periodic table, Construction of the periodic table, basis of periodic classification
- General survey of elements- elements with electrons in s, p, d and f level of orbitals
- Variation of properties (Sizes of atoms and ions, ionization potential, electron affinity, electro negativity) along a period and down a group

Unit 3: Chemical Bond

3

Learning Outcomes

At the end of this unit learners will be able to

- analyze the theory of chemical bond, bond types and properties associated with bond types
- explain the hybridization of bond orbitals and its related features
- illustrate Electron pair repulsion theory and discuss the shapes of molecules

Content

- Electronic theory of chemical bond. Bond types - ionic bond, covalent bond, co-ordination bond, metallic bond, hydrogen bond, Van der waal bond
- Properties associated with different bonds
- Hybridization of bond orbitals, hybrid bond and molecular geometry, Bond angle, bond length, bond strength
- Bond Polarization and ion polarization, Lattice energy
- Electron pair repulsion theory and shapes of molecules and ions

Unit 4: Chemical Reaction

3

Learning Outcomes

At the end of this unit learners will be able to

- briefly discuss different types of Chemical reactions
- explain significance of oxidation state and oxidation number

Content

- Different Types of Chemical reactions
- Oxidation and reduction reactions, oxidation state and oxidation number
- Writing equation involving oxidation-reduction reactions

Unit 5: Acids and Bases

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept, and reactivity of acids and bases
- classify different acids and bases
- compare between the features oxyacids and peroxyacids

Content

- Modern concepts of acids and bases, classification and reactivity, oxyacids and peroxyacids

Unit 6: Group Elements Chemistry

6

Learning Outcomes

At the end of this unit learners will be able to

- discuss the discovery, occurrence, preparation, properties and uses of the elements of different groups of periodic table
- compare and differentiate between the features and elements of different groups of periodic table

Content

- Brief study of the following groups of elements with special reference to discovery, occurrence, preparation, properties and uses of the elements and their important compounds:
 - (i) Alkali metals
 - (ii) Alkaline earth metals
 - (iii) Group 1, particular reference to B and Al
 - (iv) Group 2, particular reference to C, Si, Sn and Pb
 - (v) Group 3, particular reference to N and P
 - (vi) Group 4, particular reference to S and Cr.

Unit 7: Transition Elements Chemistry

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the properties and periodic trends in the transition of elements
- b. describe the chemistry of the elements of the first transition series

Content

- General properties of transition element
- Periodic trends in the transition elements
- General Chemistry of the elements of the first transition series
- Co-ordination bonds

Unit 8: Metallurgy of some selected Elements

3

Learning Outcomes

At the end of this unit learners will be able to

- a. briefly explain about the metallurgy of Cu, Zn, Fe, Al
- b. compare among the metallurgy of Cu, Zn, Fe, Al

Content

- Metallurgy of Cu, Zn, Fe, Al

Unit 9: Introduction to Nuclear chemistry

3

Learning Outcomes

At the end of this unit learners will be able to

- a. briefly explain concepts related to radioactivity
- b. explain artificial radioactivity and different types of nuclear reactions
- c. compare between nuclear fission and fusion reactions

Content

- Discovery of Radioactivity, concept of half life, disintegration constant of radio-element
- Isotopes and their uses, Artificial radioactivity and nuclear reactions
- Fission and fusion, nuclear energy
- Decay Series of Uranium and Thorium

B. Practical

10

Learning Outcomes

At the end of this unit learners will be able to

- apply concepts, principles and laws of Chemistry in identifying Cations and Anions
- apply concepts, principles and laws of Chemistry in preparation of inorganic salts
- apply concepts, principles and laws of Chemistry in conducting quantitative analysis of inorganic compounds
- demonstrate science process skills in conducting experiments in Inorganic Chemistry
- value empirical evidence in generating and supporting Chemistry concepts
- value science process and demonstrate inquisitiveness, open-mindedness, skepticism, accuracy and intellectual honesty

Qualitative analysis

- Qualitative analysis of Inorganic mixtures containing not more than four radicals by classical or semi-micro methods
- Cations: Silver, Mercury, Lead, Copper, Cadmium, Tin, Iron, Aluminum, Chromium, Zinc, Nickel, Manganese, Cobalt, Calcium, Magnesium, Sodium, Potassium, Ammonium
- Anions: Chloride, Bromide, Iodide, Sulfide, Sulfate, Sulphite, Thio-sulphate, Carbonate, Nitrate

Preparation of the Following Compound

Ferrous Sulphate, ferrous ammonium sulphate, chrome alum and Potash alum

Inorganic Quantitative Analysis

- Acidimetric and alkalimetry e.g. preparation of approx. N/10 HCl, H₂SO₄ and CH₃COOH solutions and their standardization
- Preparation of standard alkali solution
- Oxidation-reduction titrations involving:
 - Preparation and standardization of N/10 KMnO₄ solution with sodium oxalate solution
 - Determination of Ferrous iron with standard KMnO₄ solution
- Preparation of standard N/10 iodine solution and standardization of Na₂S₂O₃ solution

6. Instructional Strategies

- Lecture
- Discussion
- Group work
- Problem solving
- Practical work

7. Assessment

- | | |
|-------------------------------|----|
| a. In-course examination | 15 |
| b. Semester final examination | 60 |
| c. Practical Examination | 25 |

8. Recommended Books, Journals and Reports

Atkins, P. (2010). Shriver & Atkins' inorganic chemistry (5th ed.). Oxford University Press.
Brown, G. I. (1985). *Introduction to inorganic chemistry* (2nd ed.). Longman.
Ebbing, D., & Gammon, S. D. (2016). *General chemistry* (11th ed.). Cengage Learning.
Haider, S. Z. (2008). *Introduction to modern inorganic chemistry* (3rd ed.). Edexcel Publishers.
Housecroft, C. Sharpe, A. G. (2012). *Inorganic chemistry* (4th ed.). Pearson.

- Mendham, J., Denney, R. C., Barnes, J. D. & Thomas, M. J. K (2000). *Vogel's quantitative chemical analysis* (6th ed.). Prentice Hall.
- Partington, J. R. (1937). *Textbook of inorganic chemistry* (5th ed.). Macmillan Publishers.
- Svehla, G. (1996). *Vogel's qualitative inorganic analysis* (78th ed.). Prentice Hall.
- Zumdahl, S. S., Zumdahl, S. A., & DeCoste, D. J. (2017). *Chemistry* (10th ed.). Cengage Learning.

1. Course Number: ACS 334

Course Title: Chemistry-Four: Industrial and Environmental Chemistry

2. Credit Hours: 4

3. Course Description

Because of industrial activities by human, environment has been severely affected. This course includes two important interconnected areas in Chemistry - Industrial Chemistry and Environmental Chemistry. Industrial chemistry section includes detailed discussion on some selected industries - Glass, Fertilizer, Cement, Sulphuric Acid, Soaps and Detergents, Sugar and Fermentation industries. Environmental chemistry section includes concepts of environment and environmental pollution; water; soil and atmospheric pollution; causes, mechanism, effects of Pollution and preventive measures.

4. Course Objectives

The objectives are to help learners to

- comprehend Fundamentals to develop a chemical industry, basic principle and production process of industrial products.
- understand the mechanism, causes, effects of environment pollution and preventive measures need to be taken for preventing pollution.
- demonstrate skills and abilities needed to conduct environmental and industrial experiments.
- acquire attitude and values inherent to studying environmental and industrial Chemistry.
- become aware of environmental pollution due to human activities involving chemicals.

5. Course Contents

Contact Hours

A: Theory

Section 1: Industrial Chemistry

Unit 1: Fundamentals in the Development of Chemical Industries

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the fundamental concepts related to industrial chemistry such as Raw materials, Process design, Commercial energy sources, Human resource Development, Unit process and unit operations
- discuss about the features of catalysts and conceptualize how water works as the process fluid
- describe the Concepts of Consumption, Production and market evaluation, Safety and environmental analysis

Content

Raw materials, Process design, Commercial energy sources, Human resource Development, Unit process and unit operations, Catalysts, Water as the process fluid, Heat Transfer, Mass Transfer, Concepts of Consumption, Production and market evaluation, Safety and environmental analysis

Unit 2: Fuel

3

Learning Outcomes

At the end of this unit learners will be able to

- explain the concept and classifications of fuels
- describe different methods of processing of different fuels
- compare different alternative sources of energy
- value the use and necessity of using environment friendly fuels

Content

- Concepts of fuel, classification of fuels
- Methods of processing various fuels
- Fossil fuels - coal, petroleum and natural gases
- Nuclear power
- Pollution due to uses of fossil fuels and nuclear power
- Energy conservation, looking for alternative sources of energy - solar energy, energy from wastes, biogas, photovoltaic energy, Environmental friendly fuels, CNG, hydropower, wind energy, Geothermal, Tidal and wave energy

Unit 3: Glass Industry

1.5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the fundamentals and raw materials of glass industry
- b. compare different methods of manufacturing glasses

Content

- Raw materials and fundamentals of glass industry, Methods of manufacture, Special glasses

Unit 4: Cement Industries

1.5

Learning Outcomes

At the end of this unit learners will be able to

- a. briefly explain about the constituents and raw materials of cement industries
- b. describe the different types of manufacturing cement

Content

- Raw materials, constituents of cement, Manufacture of Portland cement, Special cement, Dry Lime manufacture, Gypsum, Plaster of Paris

Unit 5: Fertilizer Industry: Nitrogen based fertilizer

1.5

Learning Outcomes

At the end of this unit learners will be able to

- a. briefly explain about the types of nitrogen based fertilizer
- b. describe functions of nitrogen in plant growth
- c. illustrate the manufacturing process of ammonia and urea

Content

- Nitrogen fixation, Types of nitrogen based fertilizer, Functions of nitrogen in growing up of plants, Raw materials and manufacture of ammonia and urea

Unit 6: Sugar and Fermentation

1.5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe production, inversion and refining of sugar
- b. illustrate the process of manufacturing industrial and absolute alcohol

Content

- Industrial production of Sugar, Inversion of sugar, Refining of sugar, by products of Sugar industries, Manufacture of industrial and absolute alcohol, Enzyme

Unit 7: Soaps and Detergents

1.5

Learning Outcomes

At the end of this unit learners will be able to

- a. briefly explain about the methods of fat splitting
- b. narrate the concept of manufacturing different types of soaps and detergents

Content

- Methods of fat splitting, Manufacture of Laundry and toilet soaps
- Manufacture of detergents, Comparison of soap, with detergent of detergent, Biodegradability of detergents, Principle of shampoo Production

Unit 8: Sulfuric Acid Industries

1.5

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance, properties and production related issues of sulphuric acid
- b. describe principle and production of Sulphuric Acid by chamber and contact process- Oleum manufacture

Content

- Sulfuric Acid: Importance and properties
- Production processes
- Chamber process-principle and production process; purification and concentration of the chamber acid
- Contact process - principle and production; Oleum manufacture, grades of acids

Section 2: Environmental Chemistry

Unit 1: Concept of Environment and Environmental Pollution

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept, component and the composition of environment
- b. explain what environmental pollution means
- c. classify among different types of pollutants
- d. value the necessity of reducing environmental pollution

Content

- Concept of Environment, Components of environment and their natural composition
- Concept of pollution
- Classification of pollutants- Natural and manmade, Biological, chemical and physical pollutants

Unit 2: Water Pollution

4.5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of water cycle
- b. classify different types of water pollutants
- c. value the necessity of preventing water pollution
- d. conceptualize total waste water treatment system

Content

- Water- a unique substance, water cycle
- Water pollution, Classification of water Pollutants, Heavy metals as water pollutants, Soap, detergent and pesticides in water, Alkalinity and salinity of water, Arsenic Pollution, Biochemical effects, Industrial waste, Sewage and water pollution
- Water pollution control, water treatment, Removal of Hardness, Removal of iron, Removal of solids, organic matters and heavy metals. Total waste water treatment system

Unit 3: Pollution in Atmosphere

4.5

Learning Outcomes

At the end of this unit learners will be able to

- a. briefly explain the concept, composition, regions of atmosphere
- b. illustrate different types of air pollution
- c. explain causes, mechanism and effect of ozone layer depletion
- d. explain phenomena, causes, mechanisms and effects of greenhouse effects and acid rain
- e. value the prevention of air pollution

Content

- Composition and importance of atmosphere, Major regions of the atmosphere, Chemical and photochemical reactions in atmosphere
- Dust, Black carbon and other Suspended particulate matters
- The greenhouse effect: Causes, mechanism and effects
- Ozone layer depletion, Causes, -mechanism and effects
- Smog formation: causes, mechanism and effects
- NO_x, SO_x, CH₄ and CO as pollutants
- Acid rain- mechanism, causes and effects
- prevention of air pollution

Unit 4: Pollution in Soil

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept, nature and composition of soil
- b. identify and describe different matters, components and reactions in soil
- c. classify different types of soil pollutants
- d. value the prevention of soil pollution

Content

- The nature of soil, water and air in soil, Organic matters in soil, Inorganic components of soil, Acid, Base and ion exchange reactions in soil

- Nitrogen in soil, Phosphorous in soil, micronutrients in soil fertilizers
- waste and pollutants in soil, soil corrosion, Agriculture and health

B: Practical

10

Learning Outcomes

At the end of this unit learners will be able to

- apply concepts, principles and laws of Chemistry in conducting investigation on environmental issues
- apply concepts, principles and laws of Chemistry in conducting analysis of industrial products
- demonstrate science process skills in conducting experiments in industrial and environmental Chemistry
- value empirical evidence in generating and supporting Chemistry concepts
- value science process and demonstrate inquisitiveness, open-mindedness, skepticism, accuracy and intellectual honesty

Content

- Analysis of water for (i) total suspended solids (b) temporary hardness (c) permanent hardness (d) chloride
- Analysis of water to determine quality of water (by measuring different environmental parameter such as dissolved Oxygen, turbidity)
- Analysis of fats and oils for (a) saponification value (b) iodine value and (c) acid value
- Analysis of soap for acid and alkali
- Analysis of cane sugar for glucose by Fehling's and Benedict solution methods

6. Instructional strategies

- Lecture
- Discussion
- Group work
- Practical work
- Project work

7. Assessment

- In-course Examination 15
- Semester Final Examination 60
- Practical Examination 25

8. Recommended Books, Journals and Reports

- Austin G. T. (2012). *Shreve's chemical process industries* (5th ed.). McGraw Hill India.
- Baird, C., & Cann, M. (2004). *Environmental chemistry* (3rd ed.). W. H. Freeman.
- Chaudhary, D. D. B. (2015). *Industrial Chemistry*. CreateSpace Independent Publishing Platform.
- Cunningham, W. P., & Cunningham, M. A. (2016). *Principles of Environmental Science* (8th ed.). McGraw Hill Education.
- De, A. K. (2010). *Environmental chemistry* (7th ed.). New Age International Pvt. Ltd.
- Heaton, C. A. (2012). *An introduction to industrial chemistry* (3rd ed.). Springer.
- Johnsen, I., & Jorgesen, S. E. (1989). *Principles of environmental science and technology* (2nd ed.). Elsevier.
- Spiro, T. G., & Stigliani, W. M. (2002). *Chemistry of the environment* (2nd ed.). Prentice Hall.
- Van Loon, G. W., & Duffy, S. J. (2019). *Environmental chemistry: A global perspective* (4th ed.). Oxford University Press.

1. Course Number: ACS 341

Course Title: Botany-One: Plant forms-1 and Plant Pathology

2. Credit Hours: 4

3. Course Description

This course is designed to introduce learners with the basic knowledge of Microbiology, Mycology, Phycology, Lichen and Plant Pathology. The learners will develop skills for studying different plant specimens in the laboratory and in the field related to the pre-mentioned topics. It is expected that learners will develop scientific attitude for studying importance of plant forms and pathogens in their life. This course also includes practical activities that will guide learners to clarify their learning, and also create scope to gain skills for investigating and applying science concepts to explore the nature as well as natural phenomena.

4. Course Objectives

The objectives are to help learners to

- a. acquaint with basic concept of virus, bacteria, fungi, algae, lichen and plant pathogen with special reference to the plants of Bangladesh.
- b. develop skills for studying microbes and pathogens, for identifying and treating some plant diseases.
- c. develop positive attitudes towards modern, scientific and applicable methods for studying plants.

5. Course Contents

Contact Hours

A. Theory

Unit 1: Botany as an integral part of Science and Science Education

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain what Science is
- b. describe scopes of different forms and branches of Botany
- c. rationale of studying Botany as part of Science and Science Education

Content

- Science as an inquiry to the Nature
- What is Botany?
- Scopes of Botany
- Rationale of studying Botany as part of Science and Science Education

Unit 2: Microbiology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts of virus and viral diseases
- b. explain basic concepts of bacteria and bacterial diseases
- c. describe economic importance of virus and bacteria

Content

- Discovery, structure, multiplication of virus and common disease caused by virus
- Distribution, structure, multiplication, sexuality, recombination and death in bacteria
- Economic importance of virus and bacteria

Unit 2: Mycology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts of fungi
- b. explain general aspects and significance of the selected fungal genera

Content

- General characteristics and classification of the fungi
- Structure, reproduction and economic importance of selected fungal genera: *Synchytrium*, *Penicillium*, *Rhizopus*, *Puccinia*

Unit 3: Phycology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. recognize major groups of algae
- b. explain general aspects and significance of major algal groups
- c. describe biological importance of Phytoplankton
- d. describe the importance of algae

Content

- Classification of Algae
- Life history, general characteristics, ecology and economic importance of major algal groups- Cyanophyta, Chlorophyta, Rhodophyta, Euglenophyta, Phaeophyta and Bacillariophyta
- Biological importance of fresh water and marine phytoplankton with examples
- Importance of algae as-
 - a. primary food producer
 - b. producer of water bloom
 - c. indicator of water condition
 - d. source of food, medicine and fodder
 - e. other economic and industrial products

Unit 4: Lichen

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts of lichen
- b. recognize different vegetative structures of lichen
- c. describe economic importance of lichen

Content

- General characteristics, classification and reproduction of lichen
- Vegetative structures of lichen: Leprose, Crustose, Foliose, Fruticose and Filamentous
- Economic importance of lichen

Unit 5: Plant Pathology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain plant diseases, disease development, symptoms and controls
- b. recognize plant diseases based on symptoms
- c. recognize symptoms, pathogen and control measures of common plant diseases caused by virus, bacteria and fungi

Content

- Plant diseases: definition, causes, stages of disease development, symptoms and principles of plant disease control
- Study of symptoms, pathogen and control measures of the following diseases caused by virus, bacteria and fungi
 - a. Viral disease:
 - i. Mosaic of bean
 - ii. Vein clearing of okra
 - iv. Leaf curling of tomato
 - b. Bacterial disease:
 - i. Citrus canker
 - ii. Soft rot of potato
 - iii. Wilting of eggplant
 - c. Fungal disease:
 - i. Brown spot of rice
 - ii. Anthracnose of jute
 - iii. Red rot of sugarcane

B. Practical

10

Learning Outcomes

At the end of the practical activities learners will be able to

- a. apply theoretical understanding to conduct practical activities related to Microbiology, Mycology, Phycology, Lichen and Pathology
- b. demonstrate process skills in conducting practical works within the topic areas
- c. value scientific inquiry and demonstrate inquisitiveness, open-mindedness, skepticism and intellectual honesty

Content

Microbiology

- Study and proper handling of simple and compound microscopes
- Prepare and observe microscope slides of different source of bacteria (soil, curd, root nodule bacteria)

Mycology

- Collection and preservation of available fungal genera
- Identify various types of collected and preserved fungi
- Prepare and observe microscope slides of different fungi

Phycology and Lichen

- Identify various types of collected and preserved algae from different ecological habitats (aquatic, terrestrial, subaerial, marine, brackish and fresh water)
- Collection, preservation and identification of lichens available in Bangladesh

Plant Pathology

- Collection, preservation and identification of diseased plant parts caused by virus, bacteria and fungi
- Prepare and observe microscope slides of diseased plant parts

6. Instructional Strategies

- a. Lecture
- b. Group discussion
- c. Demonstration
- d. Inquiry
- e. Field trip

7. Assessment

- | | |
|---|----------|
| a. One In-course Examinations | 15 Marks |
| b. Semester Final Examination (MCQ + Essay) | 60 Marks |
| c. Practical Examination | 25 Marks |

8. Recommended Books, Journals and Repots

- Agarios, G.N. (2002). *Plant Pathology* (5th ed.). Academic Press.
- Alexopoulos, C.J., Mims C.W., & Blackwell, M. (1996). *Introductory Mycology* (4th ed.). Wiley Estern Ltd.
- Bold, H.C., & Wynne, M.J. (1978). *Introduction of the Algae*. Prentice-Hall.
- Frobisher, M. (1974). *Fundamentals of Microbiology*. W.B. Saunders Company.
- Lee, R.R. (1999). *Phycology*. Cambridge Univ. Press.
- Pelczar, M.J., Chan, E.C.N., & Krieg, N.R., (1986). *Microbiology*. McGraw-Hill Book Co. Ltd.
- Tortora, G.J., Funke B.R., & Case, C.E. (1997). *Microbiology An Introduction*. Addition Wesley Longman. Inc.
- Walker, C.J. (1950). *Plant Pathology*. McGraw-Hill Book Co. Ltd.
- Webster, J. (1980). *Introduction to Fungi*. Cambridge University Press.
- আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৭), উদ্ভিদবিজ্ঞান (প্রথম খণ্ড), ঢাকা: বাংলা বাজার।
- দেবব্রত মিত্র, জীবেশ গুহ ও সলিল সুমার চৌধুরী (১৯৯৩), উদ্ভিদবিজ্ঞান (প্রথম খণ্ড), কলিকাতা: মৌলিক লাইব্রেরী।
- মাহবুবর রহমান খান, মো: আবুল হাসান ও মনিরুজ্জামান খন্দকার (১৯৮৯), উদ্ভিদবিজ্ঞান (প্রথম খণ্ড), ঢাকা: হাসান প্রিন্টিং প্রেস।

1. Course Number: ACS 342

Course: Botany-Two: Plant forms-2, Plant Anatomy and Plant Ecology

2. Credit Hours: 4

3. Course Description

This course is designed to introduce learners with the basic knowledge of Cryptogams, Gymnosperms, Plant Anatomy, Plant Ecology and Limnology. The learners will develop skills to explore these areas of Botany. It is expected that learners will develop scientific attitude towards studying plant forms, their Anatomy and Ecology. This course also includes practical activities that will guide learners to clarify their learning, and also create scope to gain skills for investigating and applying science concepts to explore the nature as well as natural phenomena.

4. Course Objectives

The objectives are to help learners to

- acquaint with basic knowledge of Cryptogams, Gymnosperms, Plant Anatomy, Plant Ecology and Limnology.
- develop skills for studying Cryptogams, Gymnosperms, Plant Anatomy, Plant Ecology and Limnology in the laboratory and in the field.
- develop positive attitudes towards modern, scientific and applicable methods for studying plants.

5. Course Contents

Contact Hours

A. Theory

Unit 1: Cryptogams and Gymnosperms

9

Learning Outcomes

At the end of this unit learners will be able to

- describe characteristics of Bryophyta, Pteridophyta and Gymnosperms
- recognize the representative genera of Bryophyta, Pteridophyta and Gymnosperms
- describe economic importance of Bryophyta, Pteridophyta and Gymnosperms

Content

- Main characteristics of Bryophyta, Pteridophyta and Gymnosperm
- Characteristics, distribution and life history of common Bryophyta: *Riccia* and *Marchantia*
- Characteristics, distribution and life history of common Pteridophyta: *Psilotum*, *Selaginella*, *Lycopodium* and *Sphagnum*
- Characteristics, distribution and life history of common Gymnosperms: *Cycus*, *Pinus* and *Gnetum*
- Economic importance of Bryophyta, Pteridophyta and Gymnosperms

Unit 2: Plant Anatomy

6

Learning Outcomes

At the end of this unit learners will be able to

- describe tissue and tissue system
- explain secondary growth of root, stem and their transition
- recognize anatomical features of common wood plants

Content

- Tissue and tissue system
- Secondary growth in stems and roots of selected plants: Jute, *Boerhaavia* and Chickpea
- Root-stem transition
- Internal structure and use of wood with reference to *Tectona grandis*, *Shorea robusta* and *Heritiera fomes*

Unit 3: Plant Ecology: Synecology

6

Learning Outcomes

At the end of the unit learners will be able to

- a. describe basic concepts of ecology
- b. understand adaptive features of plants with their ecological environment
- c. measure plant vegetations by using different methods
- d. explain different phenomenon of plant ecosystem

Content

- History, definition, scope and sub-division of Ecology
- Ecological adaptation of plants: Hydrophytes, Mesophytes, Xerophytes and Halophytes with examples
- Methods of studying vegetation: Quadrant, Transect, Bisect, Line intercept, Ring count and Camera method
- Components of ecosystem, pond ecosystem, food chain, food web, energy flow in ecosystem

Unit 4: Plant Ecology: Autecology

3

Learning Outcomes

At the end of the unit learners will be able to

- a. describe role of green plants in nature
- b. explain physical and chemical properties of soil

Content

- The role of green plants in nature with reference to
 - a. The sun- a thermonuclear energy sources
 - b. Radiant energy
 - c. Human population and food supply
- Soil environment: Soil profile, physical and chemical properties of soil

Unit 5: Limnology

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain concept of Limnology
- b. describe different types of aquatic environment
- c. comprehend the origin and classification of lakes
- d. describe water pollution with consequences and solution

Content

- Definition, scope and importance of Limnology
- Types of aquatic habitat: pond, haor, baor, beel, lake, river
- Origin and classification of lakes on the basis of basin-shape and productivity
- Water pollution: Definition, causes, consequences and solution

B. Practical

Learning Outcomes

10

At the end of the practical activities learners will be able to

- apply theoretical understanding to conduct practical activities related to Cryptogams, Gymnosperms, Plant Anatomy, Plant Ecology and Limnology
- demonstrate process skills in conducting practical works within the topic areas
- value scientific inquiry and demonstrate inquisitiveness, open-mindedness, skepticism and intellectual honesty

Content

Higher Cryptogams and Gymnosperms

- Study of external and internal morphology of bryophytes and pteridophytes covered in the theory
- Study of external and internal morphology of gymnosperms covered in the theory

Anatomy

- Study of secondary growth in stems and roots of selected plants: Jute, *Boerhaavia* and Chickpea
- Study of wood section: *Tectona grandis*, *Shorea robusta* and *Heritiera fomes*

Ecology

- Morphological and anatomical adaptations of hydrophytes, mesophytes, halophytes and xerophytes
- Study of vegetation: Quadrature methods
- Determination of salinity, pH value, moisture and texture of soil samples

Limnology

- Study of the chemical and physical factors of water in the laboratory and in the field: temperature, water color, dissolved O₂, dissolved CO₂ and temperature

6. Instructional Strategies

- Lecture
- Group discussion
- Demonstration
- Inquiry
- Field trip

7. Assessment

- One In-course Examinations - 15 Marks
- Semester Final Examination (MCQ + Essay) - 60 Marks
- Practical Examination - 25 Marks

8. Recommended Books, Journals and Reports

Arthur, J. E., & MacDaniels, L. H. (1947). *An Introduction to Plant Anatomy*. McGraw-Hill Book Co. Ltd.

Pandey, B. P. (1989). *Plant Anatomy*. S. Chand and Co. Ltd.

Smith, G. M. (1971). *Cryptogamic Botany* (Vol.1). McGraw-Hill Book Co. Ltd.

Smith, G. M. (1955). *Cryptogamic Botany* (Vol.II). McGraw-Hill Book Co. Ltd.

আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৭), *উদ্ভিদবিজ্ঞান* (প্রথম খণ্ড), ঢাকা: বাংলা বাজার।

আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৯), *উদ্ভিদবিজ্ঞান* (দ্বিতীয় খণ্ড), ঢাকা: বাংলা বাজার।

মাহবুবর রহমান খান, মো: আবুল হাসান ও মনিরুজ্জামান খন্দকার (১৯৮৯), *উদ্ভিদবিজ্ঞান* (প্রথম খণ্ড), ঢাকা: হাসান প্রিন্টিং প্রেস।

মো: আবুল হাসান (১৯৯১), *উদ্ভিদবিজ্ঞান* (দ্বিতীয় খণ্ড), ঢাকা: হাসান প্রিন্টিং প্রেস।

মনিরুজ্জামান খন্দকার (১৯৯৮), *লিমনোলজি*, ঢাকা: ঢাকা বিশ্ববিদ্যালয়।

দেবব্রত মিত্র, জীবেশ গুহ ও সলিল কুমার চৌধুরী (১৯৯৯), *উদ্ভিদবিজ্ঞান* (দ্বিতীয় খণ্ড), কলিকাতা: মৌলিক লাইব্রেরী।

দেবব্রত মিত্র, জীবেশ গুহ ও সলিল কুমার চৌধুরী (১৯৯৩), *উদ্ভিদবিজ্ঞান* (প্রথম খণ্ড), কলিকাতা: মৌলিক লাইব্রেরী।

1. Course Number: ACS 343

Course Title: Botany-Three: Cell Biology, Genetics, Biotechnology, Biodiversity and Evolution

2. Credit Hours: 4

3. Course Description

This Course will help learners to acquire the basic knowledge of Cytology, Cytogenetics, Genetics, Biotechnology, Biodiversity and Evolution. The learners will also develop skills to explore these areas of Botany. It is expected that learners will develop scientific attitude for studying cellular components with special emphasis on genes. This course also includes practical activities that will guide students to clarify their learning, and also create scope to gain skills for investigating and applying science concepts to explore the nature as well as natural phenomena.

4. Course Objective

The objectives are to help learners to

- comprehend the basics of Cytology, Cytogenetics, Genetics, Biotechnology, Biodiversity and Evolution.
- develop skills on this course area in the laboratory and in the field.
- develop positive attitudes toward scientific study of this course area.

5. Course Contents

Contact Hours

A. Theory

Unit 1: Cytology and Cytogenetics

4.5

Learning Outcomes

At the end of the unit learners will be able to

- explain cell, cell organelles and morphology of chromosome
- explain different types of cell division
- understand aberration of chromosome

Content

- Concept of Cytology: concept of cell, protocell and eucell
- Cell organelles
- Morphology of chromosome
- Cell division–Amitosis, Mitosis and Meiosis
- Chromosomal aberration

Unit 2: Genetics

15

Learning Outcomes

At the end of the unit learners will be able to

- describe basic concepts and terminology of Genetics
- explain Mendel's Law and its exceptions
- comprehend linkage, crossing-over and recombination map of chromosomes
- explain cytoplasmic inheritance and mutation
- explain structure and replication of genetic materials
- explain protein synthesis
- describe role of genetics in crop improvement

Content

- Introduction to Genetics
- General terminology used in Genetics: gene, dominant and recessive genes, homozygous and heterozygous, genotype and phenotype, variation, test cross, back cross
- Mendel's law of segregation and independent assortment
- Exceptions of Mendelism
- Linkage, crossing-over and recombination map of chromosomes
- Cytoplasmic Inheritance: (a) Extranuclear inheritance in eukaryotes: shell coiling in *Limnaea peregra* (b) Extranuclear inheritance by cytoplasmic organelles: chloroplast of *Mirabilis jalapa* (c) Extranuclear inheritance of endosymbionts: killer strain of *Paramecium aurelia* (d) Extranuclear inheritance in prokaryotes: F factor in *E. coli*
- Mutation: basic concepts and types
- Physical and chemical structure of genetic material: RNA and DNA
- Replication of DNA
- Protein synthesis: (i) Transcription (ii) Translation
- Role of genetics in crop improvement

Unit 3: Biotechnology

3

Learning Outcomes

At the end of the unit learners will be able to

- a. explain basic concepts of plant tissue culture with its methods and application
- b. explain basic concepts of plant genetic engineering with its methods and application
- c. describe application, risks and ethical issues of plant genetic engineering

Content

- Tissue culture: basic concepts, methods and application
- Plant genetic engineering: basic concepts, methods and application
- Application of genetic engineering in agriculture
- Risks and ethical issues of genetic engineering

Unit 4: Biodiversity Conservation

3

Learning Outcomes

At the end of the unit learners will be able to

- a. understand biodiversity and conservation of plants
- b. construct positive attitude towards plant biodiversity conservation
- c. describe biodiversity conservation in Bangladesh

Content

- Biodiversity: basic concepts, creation, types, loss and importance of plant biodiversity
- Conservation: modern methods, principles and importance of conserving plant biodiversity
- Biodiversity conservation in Bangladesh

Unit 5: Evolution

4.5

Learning Outcomes

At the end of the unit learners will be able to

- a. describe evolution with evidences
- b. explain theories of organic evolution by Lamarck, Darwin, Wiseman, De Vries and Stebbins

Content

- Evolution: Introduction and origin of life
- Evidences of organic evolution
- Theories of organic evolution: Lamarck, Darwinism, germplasm theory of Wiseman, mutation theory of De Vries, modern/synthetic theory of Stebbins

B. Practical

Learning Outcomes

10

At the end of the practical learners will be able to

- a. apply theoretical understanding to conduct practical activities related to Cytology, Cytogenetics, Genetics, Biodiversity and Evolution
- b. demonstrate process skills in conducting practical works within the topic areas
- c. value scientific inquiry and demonstrate inquisitiveness, open-mindedness, skepticism and intellectual honesty

Content

Cytology and Cytogenetics

- Study of different cell types: epidermal cells, root hair cells, pollen mother cells, pollen grain, staminal hair, bast fiber (Phloem fiber) cell
- Preparation of temporary slides to study mitosis in onion root tip cell by acetocarmine squash method
- Study of permanent slides of mitotic and meiotic cell division
- Study of photomicrographs of mitotic and meiotic cell division

Genetics Study of Mendelian segregation using maize cob

Biotechnology Visit to Biotechnology lab and Greenhouse (visit and report writing)

Biodiversity conservation Study of biodiversity conservation (field work at Forest/ Botanical garden/ Baldha garden/ National Park/ Botanical garden of Carzon Hall)

Evolution Study the evidences of organic evolution from different sources

6. Instructional Strategies

- a. Lecture
- b. Group discussion
- c. Demonstration
- d. Inquiry
- e. Report writing
- f. Field trip

7. Assessment

- | | |
|---|------------|
| a. One In-course Examination | - 15 Marks |
| b. Semester Final Examination (MCQ + Essay) | - 60 Marks |
| c. Practical Examination | - 25 Marks |

8. Recommended Books, Journals and Reports

- Akhtaruzzaman, M. (1997). *Cytology*. Hasan Book House.
- Akhtaruzzaman, M. (1998). *Bibartanbidhya*, Bangla Academy.
- Bell, P. R., and Woodcock, C.L.F. (1983). *The diversity of green plants*. Edward Arnold.
- Bhojwani, S. S. (1990). *Plant Tissue Culture: Applications and Limitations*. Elsevier.
- Draper, J., Scott, R., Armitage, P., & Walden, R. (1988). *Plant Genetic Transformation and Gene Expression: A Laboratory Manual*. Blackwell Science Inc.
- Jeffries, M. J. (1997). *Biodiversity and Conservation*. Routledge.
- Miglani, G. S. (2000). *Basic Genetics*. Narosa Publishing house.
- Rastogir, V. B. (1990). *Organic evolution*. Keder Nath Ram Nath.
- Stricberger, M. W. (2008). *Genetics* (3rd edition). PHI.
- Taylor, D. J., Green, N. P. O., & Stout, G. W. (2004). *Biological Science* (3rd ed.). Cambridge University Press.
- Taylor, D. J., Green, N. P. O., & Stout, G. W. (2004). *Biological Science* (3rd ed.). Cambridge University Press.
- Verma, P. S., & Agarwal, V. K. (1999). *Cytology* (8th ed.). S. Chand and Co. Ltd.
- আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৭), *উদ্ভিদবিজ্ঞান (দ্বিতীয় খণ্ড)*, ঢাকা: বাংলা বাজার।
- আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৭), *উদ্ভিদবিজ্ঞান (তৃতীয় খণ্ড)*, ঢাকা: বাংলা বাজার।
- ড. মাহবুবর রহমান খান ও মোঃ আবুল হাসান (১৯৮৯), *উদ্ভিদবিজ্ঞান (দ্বিতীয় খণ্ড)*, ঢাকা: হাসান প্রিন্টিং প্রেস।
- মোঃ আবুল হাসান (১৯৮৯), *উদ্ভিদবিজ্ঞান (তৃতীয় খণ্ড)*, ঢাকা: হাসান প্রিন্টিং প্রেস।
- দেবব্রত মিত্র, জীবেশ গুহ ও সলিল কুমার চৌধুরী (১৯৯৩), *উদ্ভিদবিজ্ঞান (দ্বিতীয় খণ্ড)*, কলিকাতা: মৌলিক লাইব্রেরী।

1. Course Number: ACS 344

Course Title: Botany–Four: Plant Function and Plant Systematics

2. Credit Hours: 4

3. Course Description

This course is designed to introduce learners with the basic knowledge of Plant Physiology, Taxonomy of Angiosperms, Economic Botany and Embryology of Angiosperms. The learners will develop some necessary skills for studying different plant function and plant specimens in the laboratory as well as in the field. The learners will also develop some scientific attitude for studying plant function and plants as important part of their daily life. This course also includes practical activities that will guide learners to clarify their learning, and also create scope to gain skills for investigating and applying science concepts to explore the nature as well as natural phenomena.

4. Course Objectives

The objectives are to help learners to

- internalize Plant Physiology, Taxonomy of Angiosperms, Economic Botany and Embryology of Angiosperms.
- develop skills for studying different plant function and plant specimens in the laboratory and in the field.
- develop scientific attitude towards these subject areas.

5. Course Contents

Contact Hours

A. Theory

Unit 1: Plant Physiology

12

Learning Outcomes

At the end of the unit learners will be able to

- understand physico-chemical phenomena and water relations in plants
- identify deficiency diseases in plants related to mineral nutrients
- explain different aspects of photosynthesis and respiration
- explain different aspects of enzyme
- explain growth and development of plants
- describe physiology of flowering and movements in plant

Content

- Physico-chemical phenomena in plants: imbibition, osmosis, diffusion, plasmolysis and root pressure
- Absorption of water: mechanism, active and passive absorption and affecting factors
- Mineral nutrition: macro and micro nutrients, mineral deficiency diseases
- Photosynthesis:
 - Basic concepts, role of light and chlorophyll
 - Mechanism of photosynthesis
 - light reaction: photophosphorylation
 - dark reaction: assimilation of CO₂, Calvin Cycle (C₃), Hatch and Slack (C₄), CAM pathways
 - comparison of C₃, C₄ and CAM pathways

- c. Factors affecting the rate of photosynthesis
- Respiration:
 - a. Basic concepts and types
 - b. Mechanism of respiration
 - aerobic respiration: glycolysis, acetyl CoA formation, TCA cycle, electron transport system
 - anaerobic respiration: fermentation with special reference to alcohol fermentation
 - c. Energy production in aerobic respiration
 - d. Factors affecting the rate of respiration
- Enzymes: definition, properties, nomenclature and classification
- Growth and development: physiological effects of the growth promoting substances (auxin, gibberellin, cytokinin, ethylene and abscisic acid)
- Physiology of flowering: photoperiodism, photoperiodic induction and vernalization
- Plant movements: classification, nature and physiological basis

Unit 2: Taxonomy of Angiosperms

7.5

Learning outcome

At the end of the unit learners will be able to

- a. describe characteristics, nomenclature and classification of Angiosperms
- b. identify different plants from selected families

Content

- Characteristics of Angiosperms: morphological and anatomical features of typical dicot and monocot plants
- Nomenclature: binomial nomenclature, common and scientific names, author citation, ICBN rules
- Classification of Angiosperms: Need for classification, Engler and Prantl's classification
- Study of families
 - a. Monocot: Palmae (Arecaceae), Gramineae (Poaceae)
 - b. Dicot: Leguminosae (Fabaceae), Nymphaeaceae, Tiliaceae, Rutaceae, Cucurbitaceae, Rubiaceae, Compositae, Euphorbiaceae

Unit 3: Economic Botany

6

Learning Outcomes

At the end of this unit learners will be able to

- a. recognize common economically important plants of Bangladesh and their uses
- b. explain the extraction and processing of commercially important plants of Bangladesh

Content

- Scientific name, used parts and uses of different economically important plants of Bangladesh with special reference to
 - a. oil yielding plants
 - b. fiber producing plants
 - c. timbre yielding plants
 - d. medicinal plants and
 - e. food plants (grains, fruits, vegetables)
- Extraction and processing of different commercial plants of Bangladesh with special reference to
 - a. paper pulp

- b. rubber (manual and industrial)
- c. sugarcane and
- d. tea (green and black)

Unit 4: Embryology of Angiosperms

4.5

Learning Outcomes

At the end of this unit the student will be able to

- a. explain the development of plant gametophytes
- b. explain the development of seeds and fruits after fertilization
- c. explain the abnormalities of embryonic development

Content

- Development of male and female gametophytes
- Fertilization and development of seeds and fruits
- Abnormalities of embryonic development:
 - a. Polyembryony
 - b. Apomixis

B. Practical

10

Learning outcome

At the end of the unit learners will be able to

- a. apply theoretical understanding to conduct practical activities related to Plant Physiology, Taxonomy of Angiosperms, Economic Botany and Embryology of Angiosperms
- b. demonstrate process skills in conducting practical works within the topic areas
- c. value scientific inquiry and demonstrate inquisitiveness, open-mindedness, skepticism and intellectual honesty

Content

Plant Physiology

- Evolution of oxygen during photosynthesis
- Chlorophyll is essential for photosynthesis
- Evolution of heat during respiration
- Demonstration of osmosis with potato osmoscope

Plant Taxonomy

- Study of families covered in theory (subjected to availability of materials)
- Introduction to the plants of IER surroundings

Economic Botany and Embryology

- Identification of common economic products derived from plants
- Study of cross sections of ovary, anthers, seeds and fruits of different plants

6. Instructional Strategies

- a. Lecture
- b. Group discussion
- c. Demonstration
- d. Inquiry
- e. Field trip

7. Assessment

- | | |
|---|------------|
| a. One In-course Examination | - 15 Marks |
| b. Semester Final Examination (MCQ + Essay) | - 60 Marks |
| c. Practical Examination | - 25 Marks |

8. Recommended Books, Journals and Reports

- Davis, P.H., & Heywood, V.H. (1963). *Principles of angiosperm taxonomy*. D. Von Nostrand Inc.
- Devlin, M.R., & Witham, H.E. (1986). *Plant Physiology* (4th ed.). CBS Publishers and Distributors.
- Hess, D. (1975). *Plant Physiology*. Springer International Student Edition.
- Hopkins, W.G. (1991). *Introduction to Physiology* (2nd ed.). John Wiley and Son, Inc.
- Jain, V.K. (2004). *Fundamentals of Plant Physiology* (7th ed.). S. Chand and Co. Ltd.
- Maheshwari, P. (1950). *An Introduction to the Embryology of Angiosperms*. Tata McGraw-Hill Publishing Co. Ltd.
- Pandey, B.P. (1980). *Economic Botany*. S. Chand & Co. Ltd.
- Pandey, S.N., & Sinha, B.R. (1990). *Plant Physiology*. Vikas Publishing House Pvt., Ltd.
- Salisbury, F.B., & Ross, C.W. (1995). *Plant Physiology* (3rd ed.). CBS Publishers and Distributors.
- আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৭), *উদ্ভিদবিজ্ঞান (তৃতীয় খণ্ড)*, ঢাকা: বাংলা বাজার।
- আমজাদ আলী খান ও তরিকুল ইসলাম (১৯৯৯), *উদ্ভিদবিজ্ঞান (দ্বিতীয় খণ্ড)*, ঢাকা: বাংলা বাজার।
- দ্বিজেনশর্মা (১৯৮০), *সপুষ্পক উদ্ভিদের শ্রেণীবিন্যাসতত্ত্ব*, ঢাকা: বাংলা একাডেমী।
- দেবব্রত মিত্র, জীবেশ গুহ ও সলিল কুমার চৌধুরী (১৯৯৩), *উদ্ভিদবিজ্ঞান (দ্বিতীয় খণ্ড)*, কলিকাতা: মৌলিক লাইব্রেরী।
- দেবব্রত মিত্র, জীবেশ গুহ ও সলিল কুমার চৌধুরী, (১৯৯৩). *উদ্ভিদবিজ্ঞান (তৃতীয় খণ্ড)*, কলিকাতা: মৌলিক লাইব্রেরী।
- মোঃ আবুল হাসান ও খায়রুল আলম (১৯৯০), *উদ্ভিদ শ্রেণীবিন্যাসতত্ত্ব*, ঢাকা: হাসান বুক হাউজ।
- মাহবুবর রহমান খান ও মোঃ আবুল হাসান (১৯৮৯), *উদ্ভিদবিজ্ঞান (দ্বিতীয় খণ্ড)*, ঢাকা: হাসান প্রিন্টিং প্রেস।
- মোঃ আবুল হাসান (১৯৮৯), *উদ্ভিদবিজ্ঞান (তৃতীয় খণ্ড)*, ঢাকা: হাসান প্রিন্টিং প্রেস।

1. Course Number: ACS 351

Course Title: Zoology-One: Diversity of Animals

2. Course Hours: 4

3. Course Description

This course will make learner familiar with different evolutionary aspects of animal phyla introducing body layers, body cavities and metameric segmentation and adaptation to environments and lifestyles. This course includes practical activities that will help learners to develop investigation skills as well as to strengthen and apply their theoretical understanding of Zoology. The study of major invertebrate and vertebrate animal groups will also enable learners to develop positive attitude towards conservation of animals.

4. Course Objectives

The objectives are to help learners to

- a. acquire fundamental knowledge of animal diversity.
- b. develop skills for studying animals in the laboratory and in the field.
- c. develop scientific attitude towards conservation of animals.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Zoology as an integral part of Science and Science Education

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain what Science is
- b. describe the scopes and branches of Zoology
- c. rationale of studying Zoology as part of Science and Science Education

Content

- Science as an inquiry to nature
- What is Zoology
- Scopes and branches of Zoology
- Rationale of studying Zoology as part of Science and Science Education

Unit 1: Origin and emergence of life

7

Learning Outcomes

At the end of the unit learners will be able to

- a. identify and characterize Protozoa, Porifera and Cnidarian animals

Content

- Emergence of animal life
- Single-celled organism
Protozoa: Systematic position, habitat, morphology, development, special features
Type study: *Amoeba/ Entamoeba*
- Animals without tissues:
Porifera: Systematic position, habitat, morphology, development, special features
Type study: *Spongilla/Euspongia*
- Radially symmetrical animals:
Cnidaria: Systematic position, habitat, morphology, development, special features
Type study: *Physalia /Obelia/ Aurelia*

Unit 2: Evolution of Body Cavities and Segmentation

14

Learning Outcomes

At the end of the unit learners will be able to

- explain characteristics and cite examples from Platyhelminthes, Nematoda, Mollusca, Annelida, Arthropoda, Echinodermata and Hemichordata
- describe developmental stages and life cycles from Platyhelminthes, Nematoda, Mollusca, Annelida, Arthropoda, Echinodermata and Hemichordata

Content

- Acoelomate phylum:
Platyhelminthes: (Systematic position, habitat, morphology, development, special features)
Type study: *Dugesia* / *Fasciola hepatica* / *Taenia solium*
- Pseudocoelomate phylum
Nematoda: (Systematic position, habitat, morphology, development, special features)
Type study: *Ascaris lumbricoides*
- Coelomates and segmentation:
Mollusca: (Systematic position, habitat, morphology, development, special features)
Type study: *Pila globosa* / *Lamellidens*
Annelida: (Systematic position, habitat, morphology, development, special features)
Type study: *Nereis*
Arthropoda: (Systematic position, habitat, morphology, development, special features)
Type study: *Macrobrachium rosenbergii*
Echinodermata: (Systematic position, habitat, morphology, development, special features)
Type study: *Asterias*
- Hemichordata: Characteristics and affinities with other phyla

Unit 3: Emergence of Vertebrae:

6

Learning Outcomes

At the end of the unit learners will be able to

- identify and recognize general characteristics of vertebrates
- explain special features of vertebrates with examples

Content

General Characteristics and Special Features of

- Subphylum 1: Protochordata
 - Urochordata
 - Cephalochordata
- Subphylum 2: Lower Vertebrates
 - Cyclostomata
 - Chondrichthyes
 - Osteichthyes
 - Amphibia
- Subphylum 3: Higher Vertebrates
 - Reptilia
 - Aves
 - Mammalia

B. Practical

10

Learning Outcomes

At the end of the practical activities learners will be able to

- identify, classify, and compare specimens of invertebrates and vertebrates
- demonstrate science process skills like collecting and preserving invertebrate and vertebrate specimen
- value scientific inquiry
- demonstrate inquisitiveness, open-mindedness

Content

- Study of museum specimens of invertebrates and vertebrates
- Study of permanent slides and models of invertebrates:
 - whole mounts
 - parasites
- Study of appendages of prawn
- Collection and preservation technique of invertebrate and vertebrate specimen

6. Instructional Strategies

- Lecture
- Discussion
- Group work
- Demonstration

7. Assessment

- | | |
|---|--------------|
| a. One In-course Examination | 15 × 1 = 15 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Practical Examination | 25 |

8. Recommended Books, Journals and Reports

- Barnes, R. D. (1980). *Invertebrate Zoology*. Philadelphia, WB Saunders Co. <https://doi.org/10.1126/science.140.3564.286>
- Barnes, R. S. K., Calow, P., Olive, P. J. W., Golding, D. W & Spicer, J. I. (2001). *The Invertebrates: A synthesis*. Blackwell Scientific Publications. <https://doi.org/10.2307/5005>.
- Campbell, N. A. (1993). *Biology*. The Benjamin/Cummings Publishing Company, Inc. [https://doi.org/10.1016/0309-1651\(91\)90134-5](https://doi.org/10.1016/0309-1651(91)90134-5)
- Hickman, C. P., Roberts, L. S. & Larson, A. (2001). *Integrated Principles of Zoology*. McGraw-Hill Co. Inc.
- IUCN Bangladesh (2000). *Red Book of threatened Animals of Bangladesh*. IUCN the World Conservation Union, Bangladesh.
- Jordan E. L., & Verma P. S. (2006). *Invertebrate Zoology*. S. Chand & Com.
- Kapoor V.C. (2008). *Theory and practice of animal taxonomy* (6th ed.). Oxford & IBH Pub.
- Kotpal, R. L. (2000). *Modern Textbook of Zoology, Vertebrate*. Rakesh Kumar Rastogi.
- Hyman, L. H. (1959). *The Invertebrates* (Vols.1-6). MacGraw Hill Co.
- Parker, T. J. & Haswell, W. A. (1959). *A Textbook of Zoology*. Macmillan & Co.
- Miller, S. A. & Harley, J. P. (1996). *Zoology*. Wm. C. Brown Publishers.
- Storer, T. I., Usinger, R. L., Stebbins, R.C. & Nybakken, J. W. (2001). *General Zoology*. Tata McGraw-Hill Co. Ltd.
- Verma, P. S. (2000). *A Manual of practical Zoology Chordates*. S. Chand & Company Ltd.

1. Course Number: ACS 352

Course Title: Zoology- Two: Comparative Anatomy and Physiology of Vertebrates

2. Course Hours: 4

3. Course Description

Students will explore the relationships between animal structures and their functions and investigate the physiological processes that enable animals to adjust to environmental changes. This course will introduce learners with anatomical peculiarities in different animals sequentially. This course also includes practical activities that will give learners space to gain investigation skills as well as to strengthen and apply their theoretical understanding of Zoology.

4. Course Objectives

The objectives are to help learners to

- a. acquire fundamental knowledge of animal structures and functions.
- b. develop skills for studying physiological processes for environmental adaptation.
- c. develop scientific attitude towards conservation of animal.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Anatomical diversity among vertebrates and physiology of digestion and respiration 18

Learning Outcomes

At the end of the unit learners will be able to

- a. compare several structures of integumentary, skeletal system among vertebrates
- b. describe structure of digestive and respiratory system among vertebrates
- c. explain mechanism of digestion and respiration among vertebrates

Content

- Integumentary system: Definition, structure, and comparative anatomy of integument proper in different vertebrate groups; integumentary derivatives: glands, scales, feathers, hairs, beaks, claws, nails, hoofs, horns, and antlers
- Skeletal system: Endoskeleton, axial and appendicular skeletons; Function of skeletal system
- Digestive system and physiology of digestion: General structure and modification of alimentary canal in different vertebrate groups; associated glands in the digestive system; mechanism of digestion
- Respiratory system and physiology of respiration: Respiratory system and accessory respiratory organs of vertebrates; mechanism of breathing among vertebrates

Unit 2: Comparative Vertebrate Physiology

12

Learning Outcomes

At the end of the unit learners will be able to

- a. describe structure of excretory, circulatory, reproductive, nervous system among vertebrates
- b. explain mechanism of excretion, circulation, and reproduction among vertebrates
- c. describe types and function of hormones

Content

- Excretory system and physiology of excretion: Pro, meso and meta nephric kidneys; succession of kidney; Mechanism of excretion among vertebrates
- Circulatory system and physiology of circulation: Modification of aortic arches among

vertebrates; Mechanism of circulation

- Reproductive system and physiology of reproduction: Reproductive system and accessory glands; Mechanism of reproduction among vertebrates
- Nervous system: Brain, spinal cord, and cranial nerves of vertebrates
- Hormones: Types and functions

B. Practical

10

Learning Outcomes

At the end of the unit learners will be able to

- a. dissect and identify different systems of vertebrates
- b. value scientific inquiry
- c. demonstrate inquisitiveness, open-mindedness

Content

- Dissection: Dissection and display of the digestive, circulatory, respiratory, nervous, and reproductive systems of Lata (snake head) fish

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Demonstration

7. Assessment

- | | |
|---|-------------|
| a. In-course Examination | 15 × 1 = 15 |
| b. Semester Final Examination (MCQ + Essay) | 20+40= 60 |
| c. Practical Examination | 25 |

8. Recommended Books, Journals and Reports

Coleman, J. G., & Olive, B. G. (1970). *Comparative Vertebrate Anatomy*. Barnes & Noble Inc.

Kent, G. C., & Carr, R. K. (2001). *Comparative anatomy of the vertebrates*. McGraw Hill.

Kotpal, R. L. (2004). *Modern Textbook of Zoology Vertebrates*. Rastogi Publication.

Miller, S. A. & Harley, J. P. (1996). *Zoology*. Wm. C. Brown Publishers.

Parker, T. J. & Haswell, W. A. (1959). *A Textbook of Zoology*. Macmillan & Co.

Romer, A. S. (1965). *The Vertebrate Body*. W.B. Saunders.

Storer, T. I., Usinger, R. L., Stebbins, R.C. & Nybakken, J. W. (2001). *General Zoology*. Tata McGraw-Hill Co. Ltd.

Weichert, C. K. (1970). *Anatomy of Chordates*. McGraw Hill Co.

Verma, P. S. (2000). *A Manual of practical Zoology Chordates*. S. Chand & Company Ltd.

Young J. Z. (2004). *The Life of Vertebrates* (3rd ed.). Oxford University Press.

1. Course Number: ACS 353

Course Title: Zoology-Three: Ethology, Embryology and Advanced Zoology

2. Credit Hours: 4

3. Course Description

This course is designed to introduce learners with the basic knowledge of ethology, embryology, and recent advances in zoology. This course includes practical activities that will give learners opportunity to gain investigation skills as well as to strengthen and apply their theoretical understanding of Zoology. The course will also develop necessary skills among learners in the laboratory and in the field.

4. Course Objectives

The objectives are to help learners to

- a. acquire fundamental knowledge of ethology, embryology, and recent advances in zoology.
- b. develop skills for studying ethology, embryology, and recent advances in zoology in the laboratory and in the field.
- c. develop scientific attitude towards study of these subjects.

5. Course Contents

Contact Hours

A. Theoretical

Unit 1: Ethology

10

Learning Outcomes

At the end of the unit learners will be able to

- a. discuss the history and concepts of ethology
- b. compare among taxis, kinesis and tropism and explain sequence of events in reflex action
- c. differentiate between instinct and learning behaviour and explain various behaviours in animals

Content

- History and concepts of ethology
- Orientation, taxis, kinesis, tropism, reflex action
- Instinct and learning behaviour
- The complex behavior of honeybees: foraging by honeybees, flower recognition, navigation, and communication among honeybees
- Breeding behaviour of three-spined stickleback fish: territory selection, nest building, colour change, zig-zag dance, nest entrance, spawning, leave the nest, fertilization, duties of male after fertilization, parental behaviour
- Parental care
 - Parental care in Fishes
 - Parental care in Amphibia
- Migration
 - Bird migration (definition of migration, types of migration, causes of migration, advantages of migration)
 - Fish migration (definition of migration, types of migratory fish, causes of migration, factors influencing migration)
- Aestivation and hibernation

Unit 2: Embryology

12

Learning Outcomes

At the end of the unit learners will be able to

- a. identify on diagrams of the male and female reproductive systems
- b. describe different stages of human reproduction and differentiate among different types of eggs in animals
- c. understand placentation in mammals
- d. identify and explain the problems during pregnancy and various birth control methods

Content

- Male and female reproductive system
- The different stages of human reproduction: Puberty, menstrual cycle, gametogenesis (spermatogenesis, oogenesis), fertilization, implantation, development of embryo (cleavage, gastrulation, organogenesis)
- Types of eggs in animals
- Placentation in mammals
- Problems during pregnancy
- Birth control methods and principles

Unit 3: Recent Advances in Zoology

8

Learning Outcomes

At the end of the unit learners will be able to

- a. explain genetic engineering, cloning, bionics, single cell protein production

Content

- Biotechnology and instrumentation
- Genetic engineering: Principles, applications, social and ethical issues of genetic engineering
- Cloning: Types, steps, benefits, risks, and controversies
- Bionics
- Single Cell Protein Production

B. Practical

10

Learning Outcomes

At the end of the practical students will be able to

- a. observe geo and phototaxis behaviour in animals
- b. identify different stages of embryonic development of chick
- c. prepare scrap book on recent advances in Zoology
- d. value scientific inquiry
- e. demonstrate science process skills

Content

- Geotaxis behaviour in earthworm
- Phototaxis behaviour in insect larvae
- Study of permanent slides showing development of chick embryo
- Students will prepare scrap book on recent advances in Zoology

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Demonstration
- e. Class participation

7. Assessment

- | | |
|---|--------------|
| a. One In-course Examination | 15 × 1 = 15 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Practical Examination | 25 |

8. Recommended Books, Journals and Reports

- Alcock, J. (2013). *Animal Behaviour* (10th ed.). Sinauer Associates, Inc. Publishers.
<https://www.sinauer.com/media/wysiwyg/tocs/AnimalBehavior10.pdf>
- Balinsky, B. L. (1981). *An Introduction to Embryology*. WB Saunders Co.
- Campbell, N. A. (1993). *Biology*. The Benjamin/Cummings .
- Carlson, B. M. (2014). *Human Embryology and Developmental Biology* (5th ed.) . Elsevier.
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- Young, J. Z. (1974). *The Life of Vertebrates*. Oxford University Press.

1. Course Number: ACS 354

Course Title: Zoology-Four: Ecology, Wildlife and Economic Zoology

2. Credit Hours: 4

3. Course Description

This course is designed to acquire fundamental knowledge of ecology, wildlife biology and economic zoology. This course includes practical activities that will give learners scope to gain investigation skills as well as to strengthen and apply their theoretical understanding of Zoology. It is also expected that learners will develop a positive attitude towards conservation of organisms and environment.

4. Course Objectives

The objectives are to help learners to

- a. acquire basic knowledge of ecology.
- b. develop skills for studying ecology in the laboratory and in the field.
- c. develop positive attitudes towards conservation of biodiversity and environment.
- d. acquire detailed knowledge of economically important animals.

5. Course Content

Contact Hours

A. Theoretical

Unit 1: Ecology

10

Learning Outcomes

At the end of the unit learners will be able to

- a. explain ecological principles including ecosystem, food chain, energy transfer in the ecosystem, ecological pyramids, nutrient cycling in an ecosystem
- b. recognize and explain different biomes of the world
- c. describe the causes, effects, and remedies of environmental pollution

Content

- Ecological principles: Ecosystem, food chain, energy transfer in the ecosystem, ecological pyramids, nutrient cycling in an ecosystem
- Habitat ecology: Major biomes of the world
- Applied ecology: Causes, effects, and remedies of environmental pollution

Unit 2: Wildlife of Bangladesh

10

Learning Outcomes

At the end of the unit learners will be able to

- a. describe the current status of wildlife of Bangladesh and understand the importance of wildlife conservation
- b. review the Bangladesh Wildlife (conservation & security) Act and recognize different protected areas in Bangladesh

Content

- Introduction to the wildlife of Bangladesh
- Wildlife conservation (*in situ* and *ex situ* conservation)
- Bangladesh wildlife (conservation & security) Act 2012
- Protected areas

Unit 3: Economic Zoology

10

Learning Outcomes

At the end of the unit learners will be able to

- describe culture of several economically important animals
- identify different pests of rice, jute, sugarcane, pulses and explain methods of controlling insect pests
- identify major parasites of man, domestic animals and explain the disease relationship of major parasites with them

Content

- Introduction to Economic Zoology
- Fisheries Resources of Bangladesh
- Several types of culture
 - Carp culture-types, techniques, and management
 - Shrimp culture-types, techniques, and management
 - Poultry farming-varieties of fowls and ducks; techniques of poultry farming; diseases of poultry and their control; economic importance of poultry
- Pests of rice, jute, sugarcane, and pulses; methods of controlling insect pests
- Name and disease relationship of major parasites related to man and domestic animal

B. Practical

10

Learning Outcomes

At the end of the practical learners will be able to

- investigate and explore freshwater and land ecosystem
- generate, develop, and evaluate ideas and information and apply these skills to project work
- apply knowledge and understanding of an aquatic ecosystem in aquarium project
- apply knowledge and understanding of biodiversity and conservation in the field
- value scientific inquiry
- demonstrate inquisitiveness, open-mindedness

Content

- Freshwater ecosystem by visiting pond
- Land ecosystem and food chains by visiting some terrestrial area
- Project work: Aquarium project (dependence of fishes upon green plants, energy flow and its relation to nutrition and respiration, growth and reproduction, nutrient cycling, parasitism, water quality parameters)
Activities for students: prepare a balanced aquarium, location, setting, maintenance, monitoring food and feeding of aquarium fishes, measuring different water quality parameters like pH, dissolved oxygen, hardness, temperature, CO₂ etc., breeding of aquarium fishes
- Biodiversity and conservation by field work at Forest / National Park/ Safari Park/ Zoo / Zoological Garden

6. Instructional Strategies

- Lecture
- Discussion
- Demonstration
- Group work
- Project work
- Field work

7. Assessment

a. One In-course Examination	15 × 1 = 15
b. Semester Final Examination (MCQ + Essay)	20+40 = 60
c. Practical Examination	25

8. Recommended Books, Journals and Reports

- IUCN Bangladesh. (2015). *Red List of Bangladesh*. IUCN, International Union for Conservation of Nature. <https://portals.iucn.org/library/sites/library/files/documents/RL-549.3-003-v.1.pdf>
- Bashar, M. A. (2004). *Instant Basics of Environment*. Positron Publications.
- IUCN. (1994). *Guidelines for Protected Area Management Categories*. IUCN, International Union for Conservation of Nature. <https://portals.iucn.org/library/efiles/documents/1994-007-En.pdf>
- Jeffries, M. J. (1997). *Biodiversity and Conservation (2nd ed.)*. Routledge.
- Metcalf, C. L., & Flint, W. P. (Revised by R. I. Metcalf) (1962). *Destructive and Useful Insects-their habits and control*. Tata McGraw Hill Pub. Co. Ltd.
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- Primack, R. (1998). *Essential of Conservation Biology (5th)*. Sinauer Associates, Inc. Pub. <https://www.sinauer.com/media/wysiwyg/tocs/EssentialsConservationBiology5.pdf>
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- Ross, H. H. (1964). *A textbook of entomology*. John Wiley and Sons.
- Shukla, G. S., & Upadhayay, V. P. (2008). *Economic Zoology*. Rastogi Publications.
- Turk, A., Wittes, J. J., Turk, J., & Wittes, R. E. (1978). *Environmental Science*. W.B. Saunders Company.
- Verma, V. S., & Agarwal, V. K. (1995). *Environmental Biology (Principle of Ecology)*. S. Chand Publishing.

1. Course Number: ACSE 381

Course Title: Introduction to Psychology

2. Credit Hours: 4

3. Course Description

This course is designed to help learners develop understanding, knowledge and values of psychology. It includes nature, goals, methods and scopes of psychology. It also covers motivation, emotion, learning, memory, forgetting, sensation, perception, attention, intelligence and personality, and their influences on learning.

4. Course Objectives

The objectives are to help learners to

- a. conceptualize the nature of psychology as a science.
- b. rephrase the concept of motivation, emotion, learning, memory, forgetting, sensation, perception, attention, intelligence and personality.
- c. elaborate and evaluate the factors influencing learning, memory, perception, attention and personality.
- d. understand how emotion, memory, intelligence and personality can be measured.

5. Course Contents

Contact Hours

Unit 1: Psychology as a Science

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept of psychology
- b. explain why psychology is a science/biosocial science
- c. analyze the goals of psychology
- d. explain the methods of psychology and psychological research

Content

- Concept of psychology
- Psychology as a science/ biosocial science
- Goals and scopes of psychology
- Introduction to psychological research

Unit 2: Motivation

5

Learning Outcome

At the end of this unit learners will be able to

- a. describe the concepts and classification of motivation
- b. analyze the motivational cycle
- c. explain the concept of self-actualization motivation

Content

- Concept and classification of motivation
- Motivational cycle
- Self –Actualization in Motivation

Unit 3: Emotion

4

Learning Outcomes

At the end of this unit learners will be able to

- a. rephrase the concepts and types of emotion
- b. analyze the bodily states in emotion
- c. explain the important of emotion for mental wellbeing

Content

- Concept of emotion
- Types of emotion
- Bodily states in emotion
- Why emotion is important for mental wellbeing

Unit 4: Learning

6

Learning Outcomes

At the end of this unit learners will be able to

- a. demonstrate the concept of learning and operant conditioning
- b. analyze the behaviorist learning pattern: classical and operant conditioning
- c. explain and apply the Constructivism

Content

- Concept of learning
- Behaviorist Learning Pattern and Applications: Classical Conditioning , Operant conditioning (Reinforcement)
- Constructivism: Radical, Social and Connectionism

Unit 5: Memory and Forgetting

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different concepts of memory and forgetting
- b. describe why people forget
- c. analyze and estimate different methods of measuring memory

Content

- Concept and Types of Memory and Forgetting
- Methods of measuring memory
- Reasons of forgetting

Unit 6: Sensation, Perception, and Attention

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different concepts of sensation, perception and attention
- b. analyze different laws and principles of perceptual organization
- c. explain and evaluate the influence of learning and motivation in perception

Content

- Concept of sensation perception and attention
- Principles of perceptual organization
- Influence of learning and motivation in perception

Unit 7: Intelligence

5

Learning Outcomes

At the end of this unit learners will be able to

- describe the concept of intelligence
- explain the concept of multiple, emotional and artificial intelligence with examples from their practical life
- describe the main features of Stanford-Binet Intelligence Scale and Wechsler Intelligence Scale

Content

- Concept of intelligence: Basic components, Factors, and Controversies
- Multiple Intelligence
- Emotional intelligence
- Artificial intelligence
- Measuring intelligence (Stanford Binet Intelligence Scale and Wechsler Intelligence Scale)

Unit 8: Personality

5

Learning Outcomes

At the end of this unit learners will be able to

- explain all the definitions of personality and they will be able to describe in prose the concept of personality in light of those definitions
- analyze psycho-dynamic and Erikson's theories of personality
- differentiate different measurement methods of personality traits

Content

- Concept of personality
- Psycho-dynamic theory of personality
- Measuring personality traits
- Erikson's theory of personality

6. Instructional Strategies

- Lecture
- Discussion
- Group work
- Document review
- Field visit
- Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Coon, D., & Mitterer, J.O. (2008). *Introduction to Psychology: Gateways to Mind and Behavior with Concept Maps and Reviews*. Cengage Advantage Books, USA.
- Crider, A.B., Goethals, G.R., Solomon, P.R., & Kavanagh, R.D. (1996). *Psychology*. Glenview-Scott, Foresman and Company.

Feldman R.S. (2002), *Understanding Psychology*. New York: McGraw Hill.

Kalat, W.J. (2006). *Introduction of Psychology*. Wadsworth Publishing.

Morgan, C.T. and King, R.A. (2017). *Introduction to Psychology*. New York: McGraw- Hill book Company.

Munn, N.L. (1999), *Psychology: the Fundamental of Human Adjustment*. George G. Harrap and Co. Ltd.

Plotnik, R., Kouyoumdjian, H. (2013). *Introduction to Psychology*. Cengage Advantage Books, USA.

Vasta, R., Haith, M.M., & Miller, S.A. (1992). *Study Guide: Child Psychology- The Modern Science*. New York: John Wiley & Sons.

Weiten, W. (2012). *Psychology: Themes and Variations*. Cengage Advantage Books, USA.

এম, আর, আলী (১৯৮৫), *আধুনিক মনোবিজ্ঞান*, ঢাকা: মল্লিক ব্রাদার্স।

নীহাররঞ্জন সরকার (১৯৯১), *মনোবিজ্ঞান ও জীবন*, ঢাকা: সোহেল পাবলিকেশন।

হামিদা আখতার বেগম ও অন্যান্য (১৯৮৭), *মনোবিজ্ঞান শব্দকোষ*, ঢাকা: ঢাকা ইউনিভার্সিটি প্রেস লিমিটেড।

1. Course Number: ACSE 382

Course Title: Introduction to Children with Special Educational Needs

2. Credit Hours: 4

3. Course Description

This course is designed to precede prospective teaching of disabled children knowledge regarding exceptional children i.e. children who are different from normal i.e. either disabled or gifted and the idea of a special education for these children.

4. Course Objectives

The objectives are to help learners to

- a. acquire knowledge regarding the special education for children with disabilities.
- b. comprehend the basics regarding different types of children with disabilities and their needs in education, with special references to specific learning disabilities, communication disorders, behaviour disorders, physical and other disabilities.
- c. understand about education and needs of children with gifted and talented.

5. Course Contents

Contact Hours

Unit 1: Children with Special Educational Needs

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept of children with special educational needs
- b. explain different types of children with special educational needs into specific categories
- c. compare global and local prevalence of children and adult with disabilities

Content

- Concept of the children with Special Educational Needs
- Diversity in children with Special Educational Needs (i.e. Sensory Disabilities, Physical Disabilities, Neuro-developmental Disabilities, Specific Learning Disabilities, Multiple Disabilities, Gifted and Talented)
- Issues of prevalence of disabilities: Global and Local

Unit 2: Sensory and communication Disabilities

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain concepts of visual impairment, hearing impairment and communication disorder
- b. describe the types and causes of visual impairment, hearing impairment and communication disorder into specific categories
- c. explain the identification and prevention of children with visual impairment, hearing impairment and communication disorder

Content

- Hearing Impairment: concept, causes, characteristics and degrees
- Identification and Prevention of Hearing Impairment
- Visual impairment: concept, causes, characteristics and degrees
- Identification and Prevention of Visual impairment
- Communication disorder: concept, causes, characteristics and degrees
- Identification and Prevention of communication disorder

Unit 3: Physical Disabilities

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the fundamental concepts and causes of physical disabilities
- b. analyze the causes and implications of different characteristics of physical disability
- c. explain the preventive measures of physical disabilities

Content

- Concept of physical disabilities
- Causes of physical disabilities
- Aspects and Characteristics of physical disabilities
- Prevention of physical disabilities

Unit 4: Neuro-developmental Disabilities

10

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept of Neuro-developmental disability
- b. explain the causes and characteristics of Neuro-developmental disability
- c. determine how to assess and prevent Neuro-developmental disabilities

Content

- Concept of Neuro-developmental disability: Intellectual Disability (ID), Autism Spectrum Disorder (ASD), Cerebral Palsy (CP), Down syndrome, Attention Deficit Disorder (ADHD), Learning Disorder, Global developmental Disorder
- Characteristics of Neuro-developmental disability
- Causes of Neuro-developmental disability
- Assessment and prevention of Neuro-developmental disability

Unit 5: Emotional and Behavioral Disorders (EBD)

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of emotional and behavioral disorders
- b. describe the causes and types of behavioral and emotional disorder
- c. explain how to identify and assess emotional and behavioral disorder

Content

- Concept of emotional and behavioral disorders
- Characteristics and types of emotional and behavioral disorders
- Causes of emotional and behavioral disorders
- Identification and assessment of behavioral and emotional problems

Unit 6: Multiple Disabilities

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concepts of multiple disabilities
- b. explain the causes and types of multiple disabilities
- c. identify children with multiple disabilities

Content

- Concept of multiple and severe disabilities
- Characteristics of multiple and severe disabilities
- Causes of multiple and severe disabilities
- Identification of multiple disabilities

Unit 7: Gifted and Talented Children

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept of gifted and talented children
- b. explain the factors that contribute to giftedness and talent
- c. identify gifted and talented children

Content

- Concept of gifted and talented children
- Characteristics and types of gifted and talented children
- Factors that contribute to giftedness and talent
- Identification of gifted and talented children

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Semester Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association.
- Barkley, R.A. (1998). *Attention-deficit Hyperactivity Disorder: A handbook for diagnosis and treatment* (2nd ed.). New York: The Guilford Press.
- Batshaw L.M., Nancy, J.R., Gaetano, & R.L. (2007) *Children with disabilities* (7th Edition). Baltimore, MD: Paul. H. Brooks Publishing House.
- Bill R. G. (1980). *Special education for the exceptional children*. Maryland Heights, MO: C.V. Mosby Publishers.
- Byrne, E.A., Cunningham, C.C., & Sloper, P. (1988). *Families and their children with down's syndrome: One feature in common*. New York: Routledge.
- Clough, P., Lindsay, G. (1991). *Integration and support service: Changing roles of special education*. Upton Park, Slough, UK: National Foundation for Education Research (NFER).
- Collins, B.C. (2007). *Moderate and severe disabilities: A foundational approach*. Upper Saddle River, NJ: Pearson Education.

- Hallahan, D.P., Kauffman, M.J., & Pullen, P.C., (2013) *Exceptional Learners: An Introduction to Special Education* (12th ed.). Clancy, MT : Heartland Publishers.
- Powel, C., & Tucker, I. (1991). *The Hearing-Impaired Child and School*. London, UK: Souvenir Press.
- Prizant, B.M. (2015). *Uniquely Human: A Different Way of Seeing Autism*. New York: Simon & Schuster.
- Punani, B., & Rawal, N. (1993). *Handbook on Visual Handicap*. New Delhi, India: Ashish Publishing House.
- Sylvester, H. (2010). *Legacy of the Blue Heron: Living with Learning Disabilities*. Oxtan Publishers, USA.
- Wirz, S., & Winyard, S. (1993). *Hearing and communication Disorders*. London: The Macmillan Press.
- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মো: শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা : চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।

1. Course Number: ACSE 383

Course Title: Child Development: Concept, Theory and Application

2. Credit Hours: 4

3. Course Description

This course is designed to help prospective learners to develop an understanding of growth and development of children. It entails the physical, psychological, socio-emotional, cognitive, linguistic and moral changes that occur in children between conception to early adulthood, and their individual progresses from dependency to increasing autonomy. It is a continuous process with a predictable sequence, yet having a unique course for every child.

4. Course Objectives

The objectives are to help learners to

- a. help student understand the historical perspective and present method of child development study.
- b. assist student acquire knowledge about the biological process of growth has human genetics and nature of heredity and environment.
- c. guide the students to understand the physical, motor, speech, and cognitive development in various stages.
- d. support students in understanding the timing of adolescence, its outstanding characteristics and their effects on adolescent attitude and behavior.

5. Course Contents

Contact Hours

Unit 1: Concept and history of Child Development

8

Learning Outcome

At the end of this unit learners will be able to

- a. explain the framework of development
- b. explain the history of child development
- c. describe the domains of development
- d. understand the stages of Pre-natal, Peri-natal and Post-natal development

Content

- Framework of understanding development
- Historical perspective
- Domains of developmental
- Stages of development: Pre-natal, Peri-natal and Post-natal

Unit 2: Infancy and Early Childhood Development

8

Learning Outcome

At the end of this unit learners will be able to

- a. describe the domains of development in infancy
- b. describe the domains of development in early childhood

Content

- Infant's physical development
- Infant's social development
- Infant's emotional development
- Infant's language development
- Infant's moral development

Unit 3: Adolescence

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the physical, cognitive, social, emotions, cognitive and moral development of adolescence
- b. understanding the adaptation mechanism with pubertal changes

Content

- Physical development
- Cognitive development
- Social development
- Emotional development and it's management
- Moral development
- Puberty and Sexual Reproductive Health and Rights (SRHR)

Unit 4: Theoretical perspectives of child development

18

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different developmental theories
- b. analyze the developmental theories in context to child development

Content

- Maturationist view
 - Erikson's psychosocial stages
 - Freud's psycho-sexual stages
- Cognitivist view
 - Cognitive development theory: Jean Piaget, Janes Bruners, David Ausubel
- Constructivist view
 - Kohlberg's stages of moral development
 - Bronfenbrenner's Ecological system theory
 - Vygotsky's socio-cultural theory

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Blended approach (online-offline, distance learning)

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Semester Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Berk, L. (2017). *Development through the lifespan*. Pearson Education India.
Berndt, J. T. (1997). *Child Development* (2nd ed.). Brown and Benchmark Publishers.

- Bornstein, M.H., Arterberry, M.E., & Lamb, M.E. (2014). *Development in infancy: A contemporary introduction* (5th ed.). New York: Psychology Press.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard university press.
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*, Sage.
- Bukatka, D., & Daehler, W. M. (1995). *Child Development: A Thematic Approach* (2nd ed.). Houghton Mifflin Company.
- Cole, M., & Cole, S.R. (2001). *The development of children* (4th ed.). New York: Worth Publishers.
- Dacey J. S. & Travers, J.F. (1996). *Human Development across the Life Span* (3rd ed.). Brown and Benchmark Publishers, America.
- Di Leo, J. (2014). *Child development: Analysis and synthesis*. Routledge.
- Elder Jr, G. H. (1998). The life course as developmental theory. *Child development*, 69(1), 1-12.
- Hetherington, E. M., Parke, R. D., & Locke, V. O. (1999). *Child psychology: A contemporary viewpoint*. McGraw-Hill.
- Heywood, C. (2017). *A history of childhood*. John Wiley & Sons.
- Hopkins, B., Geangu, E., & Linkenauer, S. (Eds.). (2017). *The Cambridge encyclopedia of child development*. Cambridge University Press.
- Hunt, M.L. & Bigge, M.L. (1958). *Psychological foundations of education: an introduction to human development and learning*. New York: Harper & Row.
- Keenan, T., Evans, S., & Crowley, K. (2016). *An introduction to child development*. Sage.
- Lerner, R. M. (2001). *Concepts and theories of human development*. Psychology Press.
- Lerner, R. M., Kier, C. A., & Brown, J. (2002). *Adolescence: Development, diversity, context, and application*. Upper Saddle River, NJ: Prentice Hall.
- Moore, R. C. (2017). *Childhood's domain: Play and place in child development*. Routledge.
- Papalia, D.E., Olds, S.W., & Feldman, R.D. (2001). *Human Development* (8th ed.). New York: McGraw Hill Higher Education Company.
- Shute, R. H., & Slee, P. T. (2015). *Child development: Theories and critical perspectives*. Routledge.
- Smith, A.B. & Ballard, K. (1998), *Understanding Children's development: A New Zealand Perspective* (4th ed.). Wellington. New Zealand: Bridget Williams Books
- Sroufe, L. A., Cooper, R.G. & DeHart G.B. (1996). *Child Development: Its nature and course* (3rd ed.). London: McGraw Hill.
- দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- সুলতানা জামান (১৯৯২), *বিকাশ মনোবিজ্ঞান* (পার্ট-১ এবং ২). ঢাকা: বাংলা একাডেমি।
- সুলতানা জামান ও সুলতানা বানু (২০০৬), *মানব বিকাশে মনোবিজ্ঞান*, ঢাকা: অবসর প্রকাশনা সংস্থা।

1. Course Number: ACSE 384

Course Title: Human Anatomy and Physiology

2. Credit Hours: 4

3. Course Description:

The course is designed for the prospective professionals, teachers of regular and special education to acquire preliminary knowledge of human anatomy, physiology and relate the concepts with disability.

4. Course Objectives

The objectives are to help learners to

- a. identify structure and function of human body (especially sense organs).
- b. describe cell, tissue, organs and systems of human body.
- c. identify related causes and effects in health.
- d. explore the effects of nutrition, hormones and communicable diseases in development and disability.

5. Course Contents

Contact Hours

Unit 1: Anatomy of Sense Organs

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic concepts of human anatomy and physiology
- b. describe the structure and function of sensory organs
- c. identify common disabilities associated with relevant sense organs

Content

- Basic concepts of anatomy and physiology
- Cell as the living unit of the body, Membrane,/Tissue, Organ(organization, physical structure and functional system)
- Structure and functional of Eye
- Structure and functional of Ear
- Anatomy and physiology of Taste Smell and touch
- Common Disabilities associated with Sense Organs

Unit 2: Nervous System

8

Learning Outcome

At the end of this unit learners will be able to

- a. analyze the structure and function of nervous system
- b. describe the development and function of brain
- c. relate brain with intellectual development of children
- d. identify common disabilities associated with nervous system

Content

- Neurons and its Network
- Central, Peripheral and Autonomic Nervous System
- Development and function of brain
- Relationship between brain development and intellectual development of child
- Common Disabilities associated with Nervous System

Unit 3: Endocrine System

6

Learning Outcome

At the end of this unit learners will be able to

- a. describe the function of glandular system and its associate disabilities

Content

- Endocrine and Exocrine Systems
- Glands and Hormones
- Common Disabilities associated with Hormones

Unit 4: Growth, Development and Nutrition

8

Learning Outcomes

At the end of this unit learners will be able to

- a. distinguish between growth and development
- b. identify developmental milestones
- c. analyze the impact of nutrition on growth and development
- d. recognize common disabilities associate with malnutrition

Content

- Conceptualizing Growth and Development
- Developmental Milestones up to 5 years
- Nutrition and Prenatal Growth
- Common Disabilities associated with malnutrition

Unit 5: Communicable Diseases

8

Learning Outcome

At the end of this unit learners will be able to

- a. identify a range of communicable diseases and their prevention
- b. explain the causes of pandemic
- c. identify disabilities associated with communicable Disease

Content

- Infectious/communicable Disease
- Causes and prevention of communicable Disease
- Infectious diseases leading to Pandemic (i.e. COVID-19, SARS, Ebola)
- Disabilities associated with communicable Disease

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|-----------|
| a. Two In-course Examinations | 15×2 =30 |
| b. Semester Final Examination (MCQ + Essay) | 20 +40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Baggaley, A. (2001). *Human body*. London: Dorling Kindersley.
- Bbc.co.uk. (2014). *BBC - GCSE Bitesize: Components of the circulatory/ cardiovascular system*. [online] Available at: http://www.bbc.co.uk/schools/gcsebitesize/pe/appliedanatomy/0_anatomy_circulatorysys_rev1.shtml
- Clegg, C. & Mackean, D. (2000). *Advanced biology*. London: John Murray.
- Cole, M. & Cole, S. R. (2001). *The development of children*. New York: Worth Publishers.
- Marieb, E. & Hoehn, K. (2007). *Human anatomy & physiology*. San Francisco: Pearson Benjamin Cummings.
- Peate, I. & Nair, M. (2011). *Fundamentals of anatomy and physiology for student nurses*. Chichester, UK: Wiley-Blackwell.
- Petersen, O. (2007). *Human Physiology Lecture notes*. Malden, Mass.: Blackwell Pub.
- Pocock, G., Richards, C. and Richards, D. (2013). *Human physiology*. Oxford: Oxford University Press.
- Seifert, M. (2008). *The complete idiot's guide to anatomy, illustrated*. New York, N.Y.: Alpha Books.
- Thibodeau, G. & Patton, K. (2007). *Anatomy & physiology*. St. Louis, Mo.: Mosby Elsevier.
- Van De Graaf, K., Rhees, R. & Palmer, S. (2010). *Schaum's Outlines: Human Anatomy and Physiology* (3rded). McGraw-Hill Professional Publishing.
- দিবা হোসেন ও মো: শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা : চাইল্ড সাইট ফাউন্ডেশন ।
- দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি ।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি ।
- জি. রোমানিজ, (১৯৮৫), *কানিংহামের প্র্যাকটিকেল এনাটমি ম্যানুয়েল (প্রথম খন্ড: উর্ধ্বাঙ্গ ও নিম্নাঙ্গ) (Cunningham's Manual of Practical Anatomy: Upper and Lower Limbs)*, অনুবাদ: সালেহ আহমেদ, ঢাকা: বাংলা একাডেমি ।
- জি. রোমানিজ, (১৯৮৬), *কানিংহামের প্র্যাকটিকেল এনাটমি ম্যানুয়েল (দ্বিতীয় খন্ড: বক্ষদেশ ও উদরদেশ) (Cunningham's Manual of Practical Anatomy: Thorax and Abdomen)*, অনুবাদ: শুভাগত চৌধুরী, ঢাকা: বাংলা একাডেমি ।

1. Course Number: ACSE 385

Course Title: Behavioural Concern and Management for Children with Special Educational Needs

2. Credit Hours: 4

3. Course Description

The course is designed to help learners conceptualize various patterns and factors of behaviour problem. It covers a range of proactive strategies to responding to problem behaviour in educational setting. The course will also guide learners understanding different therapeutic and management approaches to address behavioural concerns. Special emphasis is given to help learners gain essential skills of Positive Behavioural and Intervention Support (PBIS).

4. Course Objectives

The objectives are to help learners to

- a. understand the contextual perspective of behaviour.
- b. gain knowledge regarding biological, psychological and socio-cultural factors of challenging behaviour.
- c. conceptualize different patterns of challenging behaviour.
- d. understand positive behavioural support and intervention to address challenging behaviour and behaviour disorder.

5. Course Contents

Contact Hours

Unit 1: Understanding Behaviour

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe different concepts related to behavioural concern
- b. explain the underlying meanings of different terminologies used in behavioural studies

Content

- Concept of behaviour
- Terminologies used in behavioural studies
- Differences between appropriate and inappropriate behaviour

Unit 2: Factors Influencing Behavior

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain biological, psychological and sociocultural factors of challenging behaviour
- b. identify various factors (i.e school, pedagogical and parental) associated with challenging behaviour

Content

- Biological, psychological and socio-cultural factors
- School and environmental factors
- Parental/ family related factors
- Pedagogical factors

Unit 3: Classification of challenging behavior

8

Learning Outcomes

At the end of this unit learners will be able to

- a. Outline the classifications of challenging behaviour
- b. describe behaviours that are associated with disabilities and emotional disorder

Content

- Most serious behaviour
- Most frequently occurring behaviour
- Behaviour associated with disabilities
- Behaviour linked with emotional disorder

Unit 4: Behaviour Disorder

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe basic characteristics, causes and prevention of various behavioural disorders

Content

- Cognitive disorder
- Anxiety Disorder
- Conduct disorder
- Obsessive-compulsive disorder
- Attention Deficit Disorder (ADD)
- Attention deficit and hyperactivity disorder (ADHD)
- Bipolar Disorder
- Eating Disorder
- Phobia
- Somatic Disorder

Unit 5: Behaviour Management in Educational Setting

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the historical perspective of behaviour management
- b. explain various principles and approaches to classroom management

Content

- Historical perspective of behavior management
- General principles of classroom management
- Approaches: preventative and punitive strategies
- Whole school approach: School wide positive behavioural support

Unit 6: Positive Behavioural and Intervention Support (PBIS)

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of positive behavioural and intervention support (PBIS)
- b. achieve skills for applying different TIERs of PBIS

Content

- Basic concept of PBIS
- Procedure of intervention selection
- Application of PBIS: TIER-1, TIER-2, TIER-3

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Adelman, H. S., & Taylor, L. (1998). Reframing mental health in schools and expanding school reform. *Educational Psychologist*, 33, 135–152.
- Alberto, P. A., & Troutman, AC. (2005). *Applied behavior analysis for teachers* (6thed.). Englewood Cliffs, NJ: Merrill/Prentice-Hall.
- Carson R.C., Butcher J.N., & Mineka S. (1996). *Abnormal Psychology and Modern Life*. New York: Harper Collins Publishers.
- Charles, C. M. (2011). *Building Classroom Discipline*. New York: Pearson Education
- Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). *Applied behavior analysis*. Upper Saddle River, NJ: Prentice Hall.
- Crone, D. A., & Horner, R. H. (2003). *Building positive behavior support systems in schools: Functional behavioral assessment*. New York: Guilford Press.
- Crone, D. A., Hawken, L. S., & Horner, R. H. (2010). *Responding to problem behavior in schools: The behavior education program*. New York: Guilford Press.
- Halgin, W. (2000). *Abnormal Psychology, Clinical Perspectives on Psychological Disorders*. New York: McGraw Hill Higher Education.
- Jeffery, S.N., Spencer, A.R., & Beverly, G. (2000). *Abnormal Psychology in a Changing World*. New Jersey: Prentice Hall.
- Macfarlane, A.H. (2007). *Discipline, democracy, and diversity: Working with students with behavioural difficulties*. Wellington, New Zealand: NZCER
- Malak, M. S., Sharma, U. & Deppeler, J. M. (2018). Predictors of primary schoolteachers' behavioural intention to teach students demonstrating inappropriate behaviour in regular classrooms. *Cambridge Journal of Education*, 48(4), 495-514.
- Malak, M. S., Sharma, U. & Deppeler, J. M. (2015). 'Can I really teach without my magic cane?' Bangladeshi teachers' responses to the banning of corporal punishment. *International Journal of Inclusive Education*, 19(12), 1325-1341.
- Malak, M. S., Deppeler, J. M. & Sharma, U. (2014). Bangladeshi teachers' perceptions about student behavior in primary schools, *International Journal on School Disaffection*, 11(1), 59-78.
- O'Connell, M. E., Boat, T., & Warner, K. E. (2009). Committee on the Prevention of Mental Disorders and Substance Abuse among Children, Youth, and Young Adults: Research Advances and Promising Interventions. *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. Washington D.C: Academic Press. Retrieved from http://www.prevencionbasadaenlaevidencia.com/uploads/PDF/RP_Preventingyoung_people_disorders_NRCIM.pdf

- PBIS (2018). *Positive Behavioral Interventions & Supports* [Web Resources]. Washington D.C: The US Department of Education. Retrieved from www.pbis.org.
- Sugai, G., & Horner, R. R. (2006). A promising approach for expanding and sustaining school-wide positive behavior support. *School psychology review*, 35(2), 245-259. Available at <https://www.mydigitalchalkboard.org/cognoti/content/file/resources/documents/08/08d88012/08d88012b8f0a8bc8d93783ba791425c9208d5c8/spr352sugai.pdf>
- Susan, N. S., (2004). *Abnormal Psychology* (International Edition). New York: McGraw Hill
- অরুণ ঘোষ (১৯৯৪). *অস্বাভাবিক মনোবিজ্ঞান (A text book of abnormal psychology)*. কলকাতা: এডুকেশনাল এন্টারপ্রাইজ।
- দিবা হোসেন, মোঃ শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- নীহাররঞ্জন সরকার ও তনুজা সরকার (২০০৮). *অস্বাভাবিক মনোবিজ্ঞান: মানসিক ব্যাধির লক্ষণ কারণ ও আধুনিক চিকিৎসা পদ্ধতি*, ঢাকা: জ্ঞানকোষ প্রকাশনী।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*. ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: ACSE 386

Course Title: Educational Approaches for Children with Special Educational Needs

2. Credit Hours: 4

3. Course Description

This course is designed to provide students with knowledge about different approaches of educating students with Special Educational Needs (SEN). It will provide description of special program and services now available to most children, youth and adults regardless of their disability. It will help teachers to understand much of what is now accepted practice in program for education and assistance to and for students with SEN.

4. Course Objectives

The objectives are to help learners to

- a. understand the legal basis for public education and how the interpretation of this responsibility has changed over the years.
- b. provide with specific knowledge about the teaching-learning approaches for students with hearing impairment.
- c. provide with specific knowledge about the teaching-learning approaches for students with visual impairment.
- d. provide with specific knowledge about the teaching-learning approaches for students with intellectual disability

5. Course Contents

Contact Hours

Unit 1: Education Provisions for Children with Disabilities

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the historical perspective of education for children with disabilities
- b. explain the evolution of educational provisions- exclusion, segregation, integration, mainstream and inclusion

Content

- Evolution of educational provisions for children with disabilities
 - a. Exclusion
 - b. Segregation
 - c. Normalization
 - d. Integration
 - e. Mainstreaming
 - f. Inclusion (Full Inclusion, Reasonable Inclusion and Reverse Inclusion)

Unit 2: Contemporary Special Education

7

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different teaching-learning approaches along with teaching-learning materials for children with special educational needs
- b. outline the learning assessment procedures in special education followed in the recent years
- c. review curriculum development and its adaptation for special educational needs
- d. describe the importance of individualized education program
- e. compare global and local educational prevalence of special educational needs

Content

- Issues of educational prevalence of disabilities: Global and Local
- Curriculum adaptation and Modification
- Individualized Education Program (IEP)/ Negotiated Education Plan (NEP)
- Collaborative Educational Approach
- Special educational in the era of inclusion

Unit 3: Different Educational Strategies and Consideration for Educating with Disabilities

9

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the characteristics of institution based and community based rehabilitation
- b. identify the challenges of IBR and CBR in socio-economic context of Bangladesh
- c. outline the objectives and nature of disability studies
- d. describe the concept and benefits of multi-disciplinary team approach
- e. explain legal basis of rehabilitation services in Bangladesh

Content

- Institute Based Rehabilitation (IBR)
- Community Based Rehabilitation (CBR)
- Disability Studies as a discipline
- Multi-disciplinary Team Approach
- Inter-agency collaboration and External support services
- Provisions mentioned in the Rehabilitation Council Act 2018 of Bangladesh

Unit 4: Teaching approaches for Children with Sensory Impairment and Communication Disorder

9

Learning Outcomes

At the end of this unit learners will be able to

- acquire knowledge for teaching children with Sensory Impairment and Communication Disorder
- be acquainted with designing curriculum for children with Sensory Impairment and Communication Disorder

Content

- Teaching approaches and classroom considerations for children with Hearing Impairment
- Teaching approaches and classroom considerations for children with Visual Impairment
- Teaching approaches and classroom considerations for children with Communication Disorder
- Curriculum adaptation for children with Sensory Impairment and Communication Disorder

Unit 5: Teaching approaches for Children with Intellectual Disability and Multiple disability

9

Learning Outcomes

At the end of this unit learners will be able to

- conceptualize and apply the appropriate teaching approaches for children with Intellectual Disability and Multiple disability
- plan curriculum for children with Intellectual Disability and Multiple disability

Content

- Teaching approaches and classroom considerations for children with Intellectual Disability
- Teaching approaches and classroom considerations for children with Multiple Disability
- Curriculum adaptation for children with Intellectual and Multiple Disability

6. Instructional Strategies

- Lecture
- Discussion
- Group work
- Document review
- Field visit
- Blended approach (online-offline, distance mode)

7. Assessment

- Two In-course Examinations 15×2 =30
- Semester Final Examination (MCQ + Essay) 20 +40= 60
- Assignment/Presentation 10

8. Recommended Books, Journals and Reports

- Arishi, A., Boyle, C., & Lauchlan, F. (2017). Inclusive education and the politics of difference: Considering the effectiveness of labelling in special education. British Psychological Society.
- Collins, B.C. (2007). *Moderate and Severe Disabilities: A Foundational Approach*. Upper Saddle River, NJ: Pearson Education.
- Friend, M., and Bursuck, W.D., *Including Students with Special Needs, a Practical Guide for Classroom Teachers* (5th ed.). (2009) Pearson Upper Saddle River New Jersey.
- Grimley, M. (Ed.). (2012). *Teaching, learning, and assessment*. Auckland, New Zealand: Pearson.
- Hallahan, D.P., & Kaufman, J.M. (2000). *Exceptional Learner: Introduction to Special Education* (8th ed.). Boston, MA: Allyn and Bacon.
- Heward, W. L., & Wood, C. L. (1996). *Exceptional children: An introduction to special education*. Merrill Englewood Cliffs, NJ.
- Kauffman, J. M., Hallahan, D. P., & Pullen, P. C. (2017). *Handbook of special education*. New York: Routledge.
- Kauffman, J. M., Hallahan, D. P., Pullen, P. C., & Badar, J. (2018). *Special education: What it is and why we need it*. New York: Routledge.
- Kirk, S.A., & Gallagher, J.J. (2000). *Educating Exceptional Children* (9th ed.). Boston, MA: Houghton and Mifflin Company.
- Mitchell, D. (2014). *What really works in special and inclusive education: Using evidence-based teaching strategies* (2nd ed.). New York: Routledge.
- Mujis, D., & Reynolds, D. (2011). *Effective teaching: Evidence and practice*. London: SAGE.
- Rayner, S. (2007). *Managing special and inclusive education*. Los Angeles, CA: SAGE.
- Sewell, G. (2018). *Reshaping remedial education*. Routledge.
- Turnbull, A. P. (1995). *Exceptional lives: Special education in today's schools*. Merrill/Prentice Hall, Order Department, 200 Old Tappan Rd., Old Tappan, NJ 07675
- Wood, D., Wood, H., Griffiths, A. & Howarth, I. (1986). *Teaching and talking with deaf children*. Chichester, UK: John Wiley & Sons.
- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মো: শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা: চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- দিবা হোসেন ও রায়হান আরা জামান (২০২০), *একীভূত শিক্ষায় তথ্য ও যোগাযোগ প্রযুক্তি*, ঢাকা: Grants for Advanced Research in Education (GARE), শিক্ষা মন্ত্রণালয়, বাংলাদেশ সরকার।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।
- মুহাম্মদ মাহবুবুর রহমান (২০১৯), *একীভূত শিক্ষা*, ঢাকা: শিক্ষা মন্ত্রণালয়, টিকিউআই-২।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: ACSE 387

Course Title: Communication Strategies for Children with Disabilities

2. Credit Hours: 4

3. Course Description

This course is designed to provide the learners with a comprehensive knowledge of communication strategies for the children with disabilities. Through this course the learners can be acquainted with the different communication strategies for children with hearing impairment, visual impairment and neuro-developmental disabilities. This course can help learners understand not only the communication strategies inside the classroom setting but also within community and other settings. This can also benefit the learners to explore know-how approach to enhance speech, language and communication skills by applying different communication techniques and strategies. This course will also be helpful to learners in acquiring knowledge of virtual communication using ICT facilities.

4. Course Objectives

The objectives are to help learners to

- a. acquire knowledge of language and communication skills and its component and strategies.
- b. be acquainted with Anatomy, Physiology, Sociology and Psychology of Speech and language for the children with special educational needs.
- c. develop understanding about elements of manual communication and sign language.
- d. conceptualize virtual communication using information technology for children with special needs.
- e. be familiar with Augmentative Alternative Communication (AAC) and how to apply this method to enhance communication skill of children with related problems.

5. Course Contents

Contact Hours

Unit 1: Conceptualizing Communication

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept of communication and relate it with child development
- b. review historical perspective of human communication
- c. describe the components and models of communication

Content

- Understanding Communication
- Origin of Communication in Human History
- Models of Communication
- Components of Communication
- Communication and Child Development

Unit 2: Verbal and Nonverbal Communication: Speech and Language

6

Learning Outcomes

At the end of this unit learners will be able to

- a. apply different modes of communication in the classroom for children with special needs
- b. describe the meaning of speech and language as a mode of human communication
- c. explain anatomy, and physiology in terms of speech and language

- d. define the different components of language and its type
- e. describe different modes of Nonverbal communication

Content

- Speech and Language as a Mode of Communication
- Anatomy, and Physiology, of Speech and language
- Understanding Phonology, Morphology, Semantics, Syntax and Pragmatics
- Language and its types (receptive and expressive)
- Various modes of Nonverbal Communication (touch, gesture etc)

Unit 3: Augmentative and Alternative Communication (AAC)

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concept of augmentative and alternative communication
- b. describe the importance and types of augmentative and alternative communication
- c. define various types of communication- manual, tactile, visual and total communication

Content

- Concept of AAC
- Importance of AAC
- Types of AAC
- Manual, Tactile, Visual and Total Communication

Unit 4: Manual Communication and Sign Language

6

Learning Outcomes

At the end of this unit learners will be able to

- a. define gesture, sign, symbol and sign language
- b. make a relationship among oral, natural aural and manual communication
- c. describe the different types of manual communication
- d. review the historical perspective of sign language in Bangladesh
- e. demonstrate how to use sign language for the children with hearing impairment

Content

- Gesture, Sign and Sign Language
- Relationships among Oral, Natural Aural and Manual Communication
 - a. Types of Manual Communication: Natural Sign Language, Sign Supported Language, Signed Language, Cued Speech and Total Communication
 - b. Linguistics properties of Sign Language as a distinct language
- Historical background of Bangla Sign language

Unit 5: Tactile Language

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe tactile communication for the children with visual impairment and deaf-blindness
- b. identify issues of tactile language for children with visual impairment and deaf-blindness
- c. understand tactile communication for Children with Deaf-blindness

Content

- Tactile aids: concept, preparation, and importance
- History of developing Braille
- Braille system
- Tactile Communication for children with Deaf-blindness

Unit 6: Virtual Communication & ICT in Communication

8

Learning Outcomes

At the end of this unit learners will be able to

- a. define virtual communication for SEN with its components and importance
- b. describe the uses of different devices and means for effective virtual communication
- c. explain the use of ICT based communication in daily life activities and learning

Content

- Virtual Communication and its importance for children with SEN
- Technology and Communication: Computer, Mobile Phone, Internet, Social Media, TV Channels
- Available software used for children with special needs (i.e, JAWS, NVDA, TTS, Image recognition software etc.)
- Use of ICT based communication in ADL, Orientation & Mobility, and Learning Sign Language recognition system

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Semester Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Adam, T., & Tatnall, A. (2017). The value of using ICT in the education of school students with learning difficulties. *Education and Information Technologies*, 22(6), 2711-2726.
- Alant, E. & Lloyd, L. (2004) *Augmentative and alternative communication and severe disabilities: Beyond poverty*. Indianapolis, IN: John Wiley & Sons, Inc.
- Ashman, A. F., & Conway, R. N. (2017). *Cognitive strategies for special education: Process-based instruction*. Routledge.
- Batorowicz, B., Campbell, F., von Tetzchner, S., King, G., & Missiuna, C. (2014). Social participation of school-aged children who use communication aids: The views of children and parents. *Augmentative and Alternative Communication*, 30(3), 237-251
- Beukelman, D. & Mirenda, P. (2005). *Augmentative and Alternative Communication: Supporting children and adults with complex communication needs (3rd Edition)*. Baltimore, MD: Paul H. Brookes Publishing Co.

- Beukelman, D., Garrett, K., & Yorkston, K. (2007). *Augmentative Communication Strategies for Adults with Acute or Chronic Medical Conditions*. Baltimore, MD: Paul H. Brookes.
- Brady, N. C., Bruce, S., Goldman, A., Erickson, K., Mineo, B., Ogletree, B. T., & Schoonover, J. (2016). Communication services and supports for individuals with severe disabilities: Guidance for assessment and intervention. *American journal on intellectual and developmental disabilities*, 121(2), 121-138.
- Cline, T. (2018). *The Assessment of Special Educational Needs: International Perspective*. Routledge.
- Collier, B. (2000). *Communicating Matters: A training guide for personal attendants working with people who have enhanced communication needs*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Cook, R. E., Klein, M. D., & Chen, D. (2015). *Adapting early childhood curricula for children with special needs*. Pearson.
- Crossley, R. (1994). *Facilitated communication training*. Teachers College Press.
- Hasan, N., Ashraf, M., & Rahman, A. (2016). Effects of Information Communication Technology (ICT) in the Childhood Developments and Lives of Disabilities: A Multivariate Analysis. *Science*, 4(1-1), 28-37.
- Kasper, G., & Kellerman, E. (2014). *Communication strategies: Psycholinguistic and sociolinguistic perspectives*. Routledge.
- Kent, R. D. (Ed.). (2004). *The MIT encyclopedia of communication disorders*. Cambridge, Mass: MIT Press.
- Pacheco, E., Lips, M., & Yoong, P. (2017). ICT-enabled self-determination, disability and young people. *Information, Communication & Society*, 1-16.
- Von Tetzchner, S. (2002). *Augmentative and alternative communication developmental issues*. Indianapolis, IN: John Wiley & Sons, Inc.
- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মোঃ শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা : চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মোঃ শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: ACSE 388

Course Title: Children with Physical Disabilities

2. Credit Hours: 4

3. Course Description

This course is intended to provide basic concepts and knowledge on the issues related to physical impairment and its diagnosis and rehabilitation to the prospective professionals for children with physical disabilities.

4. Course Objectives

The objectives are to help learners to

- a. develop a basic understanding of different types of physical disabilities.
- b. outline the major causes of physical disabilities in children and its medical intervention.
- c. teach basic principles of assessment of physical disabilities.
- d. explain the fundamental functions of assistive devices so that the prospective professional can properly check and maintain the aids and ensure the proper use.
- e. learn how to give appropriate education, rehabilitation and therapeutic service to children with physical disabilities.

5. Course Contents

Contact Hours

Unit 1: Physical Disabilities

7

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the basic concepts of physical disabilities
- b. categories physical disabilities according to the degrees and nature of impairments
- c. identify children with physical disabilities
- d. describe the causes of physical disabilities
- e. explain the preventive measures of physical disabilities

Content

- Concept of physical disabilities
- Categories and degrees of physical disabilities
- Causes of physical disabilities
- Identification of children with physical disabilities
- Preventive measures

Unit 2: Neuro Muscular Disabilities

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic concepts related to Neuro Muscular Disabilities
- b. differentiate among different categories of Neuro Muscular Disabilities

Content

- Concept of Neuro Muscular Disabilities
 - Different categories Cerebral Palsy
 - Neural Tube Defects
 - Traumatic Brain Injury (TBI)
 - Epilepsy

Unit 3: Musculo Skeletal Disabilities

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the basic concepts of Musculo Skeletal Disabilities
- b. compare among different categories of Musculo Skeletal Disabilities

Content

- Concept of Musculo Skeletal Disabilities
- Different categories
- Loss or Deformities of Limbs
- Muscular Dystrophy
- Arthritis

Unit 4: Education for Children with Physical Disabilities

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe different educational approaches for educating children with Physical disabilities
- b. prepare Instructional Guidelines and Accommodation strategies for students with Physical Disabilities

Content

- The Educational Approaches
 - The Inter-disciplinary Team
 - Environmental Modifications
 - Special Health care Needs
 - Inclusive Attitudes
- Instructional Guidelines and Accommodation for students with Physical Disabilities
 - Adapting Instructional Activities
 - Classroom Adaptations

Unit 5: Assistive Devices for the Children with Physical Disabilities

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe different Assistive devices for children with Physical disabilities
- b. Select appropriate assistive devices for children with Physical disabilities
- c. describe the artificial limbs and their types
- d. explain the need and techniques for for maintaining devices

Content

- Types of Assistive devices
- Selecting Appropriate devices
- Artificial limbs and their types
- Maintenance of devices

Unit 6: Rehabilitation for children with Physical Disabilities

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the various concepts of rehabilitation for children with Physical disabilities
- b. determine appropriate rehabilitation options for children with Physical disabilities

Content

- Individual rehabilitation
- Social rehabilitation
- Academic rehabilitation
- Vocational and job oriented rehabilitation
- Therapeutic rehabilitation

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|------------|
| a. Two In-course Examinations | 15 × 2= 30 |
| b. Semester Final Examination (MCQ + Essay) | 20 +40= 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Batshaw M.L. (2002). *Children with Disabilities* (5thed.). Baltimore, CA: Paul H. Brooks
- Ferland, F. (2005). *The Ludic Model: Play, Children with Physical Disabilities, and Occupational Therapy*. Ottawa, ON: Canadian Association of Occupational Therapists.
- Goodman, N., Dornbusch, S. M., Richardson, S. A., &Hastorf, A. H. (1963). Variant reactions to physical disabilities. *American Sociological Review*, 429-435.
- Hallahan D., & Kaufman J.M. (2000). *Learners Introduction to Special Education* (8thed.). Boston, MA: Allyn and Bacon.
- Heward, W. L. (1992). *Exceptional Children: An Introduction to Special Education*. MerrillPrantice Hall.
- Kang, L. J., Palisano, R. J., King, G. A., &Chiarello, L. A. (2014). A multidimensional model of optimal participation of children with physical disabilities. *Disability and rehabilitation*, 36(20), 1735-1741.
- Law, M., Finkelmann, S., Hurley, P., Rosenbaum, P., King, S., King, G., & Hanna, S. (2004). Participation of children with physical disabilities: relationships with diagnosis, physical function, and demographic variables. *Scandinavian Journal of Occupational Therapy*, 11(4), 156-162.
- Law, M., Hanna, S., Anaby, D., Kertoy, M., King, G., & Xu, L. (2014). Health-related quality of life of children with physical disabilities: a longitudinal study. *BMC pediatrics*, 14(1), 26.
- Lewis, R. B. &Doorlag, D. H. (2003). *Teaching Special Students in General Educational Classroom*. Ohio: MerrillPrantice Hall.
- Palisano, R. J., Chiarello, L. A., King, G. A., Novak, I., Stoner, T., &Fiss, A. (2012). Participation-based therapy for children with physical disabilities. *Disability and rehabilitation*, 34(12), 1041-1052.
- Stolov, Walter and Clowers, Michale R. (1981), *Handbook of Severe Disabilities*, US Department of Education and University of Washington, USA.

Turnbull, A. P. (1995). *Exceptional lives: Special education in today's schools*. Old Tappan, NJ: Merrill/Prentice Hall, Order Department,

Ziviani, J., Darlington, Y., Feeney, R., Rodger, S., & Watter, P. (2014). Early intervention services of children with physical disabilities: Complexity of child and family needs. *Australian occupational therapy journal*, 61(2), 67-75.

দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।

সুনীতি চক্রবর্তী (২০১২), *অটিজম: আমাদের অসাধারণ শিশুরা*, কোলকাতা: আনন্দ পাবলিশার্স।

1. Course Number: ACSE 389

Course Title: Early Intervention for Children with Special Educational Needs

2. Credit Hours: 4

3. Course Description

This course provides prospective teachers as well as professionals with a thorough knowledge of implementing child and family services for infants and children at early childhood who are at risk of or have Special Educational Needs (SEN). The course also emphasizes on a coordinated community based interdisciplinary service approach.

4. Course Objectives

The objectives are to help learners to

- a. enable to learn the concepts which describe early intervention program and to understand its implications.
- b. review the history of early intervention emphasizing the critical needs for early childhood efforts for children with SEN, infants and toddlers at risk of SEN.
- c. develop a national perspective on early intervention programme regarding a number of variables such as types of children served, areas of major programme emphasis, parent involvement and program cost.

5. Course Contents

Contact Hours

Unit 1: Early Intervention (EI): Concepts, trends and issues

7

Learning Outcomes

At the end of this unit learners will be able to

- a. describe early intervention in the context of children with SEN
- b. describe the rationale and benefits of early intervention for children with SEN
- c. review the historical perspective and current trends of early intervention
- d. outline the legal framework of early intervention-global and national legal base

Content

- Concept, rationale and benefits of EI
- Historical Background and Contemporary Trends of EI
- Legislative Framework of Early Intervention-global and national legal base
- Services in early intervention program

Unit 2: Strategies of EI Program

7

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the approaches of early intervention programme for children with SEN
- b. outline the plan and implementation strategies for early intervention
- c. compare with different models of early intervention for children with SEN
- d. identify the issues of monitoring for effective implementation of early intervention

Content

- Approaches of Early Intervention (Out-of-home and home-based EI)
- Different models of Early Intervention
- Designing and implementing an Early Intervention programme
- Early Intervention programme reviewing and feedback

Unit 3: Staffing and Collaboration

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the essential professional members and experts for early intervention team
- b. outline the professional development and collaboration strategies for effective early intervention

Content

- Team Membership
- Multi-professional expertise
- Staff's Professional development
- Community and professional Collaboration

Unit 4: Family Involvement in Early Intervention

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the rationale of family involvement in early intervention programme
- b. describe the role of family in effective implementation of Early intervention
- c. review the legal basis and framework of family involvement in early intervention
- d. outline the features of Individualized Family Service Plan (IFSP) and its implementation mechanisms

Content

- Benefits of Family involvement in Early Intervention
- Changing Family Roles
- Legal basis of Family Involvement in Early Intervention
- IFSP and its implementation

Unit 5: Learning Environment

5

Learning Outcomes

At the end of this unit learners will be able to

- a. outline the characteristics of good learning environment
- b. describe benefits of natural environment for children with SEN
- c. design the setting and strategies of an effective learning environment
- d. explain how education program should be conducted in natural environment

Content

- Concept of learning environment
- Benefits of natural environment
- Settings and Strategies
- Education Program in natural environment

Unit 6: Basic therapies for Early Intervention

4

At the end of this unit learners will be able to

- describe about essential therapies used in EI service
- analyze the effect of the therapies on person with special need

Content

- Speech and Language Therapy (SLT)
- Physical therapy
- Occupational therapy
- Behaviour therapy
- Developmental therapy
- Psycho-therapy
- Other relevant therapies

Unit 7: Current Practices of Early Interventions

6

At the end of this unit learners will be able to

- a. describe practices of early intervention in developed and developing countries
- b. identify the organizations in Bangladesh who are working in the area of early intervention and review their activities
- c. review the current research perspectives in early intervention for SEN

Content

- Early Intervention in Developed Countries
- Early Intervention in Developing Countries
- Practices of EI in Bangladesh (Activities of some organizations in Bangladesh)
- Research Perspectives

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Anderson, W., Chitwood, S., Hayden, D., & Takemoto, C. (2008). *Negotiating the special education maze: A guide for parents and teachers*. Bethesda, MD: Woodbine House.
- Bailey, D., & Wolery, M. (1989). *Assessing Infants and Preschoolers with Handicaps*. Columbus, OH: Merrill
- Belcher, H.M.E. (1996). Developmental screening. In A.J. Capute & P. J. Accardo (Eds.), *Developmental disabilities in infancy and childhood: Vol. I. The spectrum of developmental disabilities* (2nd ed., pp. 323-340). Baltimore: Paul H. Brookes Publishing
- Bricker, D., & Squires, J., with assistance from Mounts, L., Potter, L., Nickel, R., Twombly, E., & Farrell, J. (1999). *Ages & Stages Questionnaires® (ASQ): A parent-completed, child-monitoring system* (2nd ed.). Baltimore: Paul H. Brookes Publishing.
- Bruder, M.B. (2010). Early Childhood Intervention: A Promise to Children and Families for Their Future. *Exceptional Children*, 76(3):339-355. Retrieved from

- Crossley, R. (1994). *Facilitated communication training*. New York: Teachers College Press
- Dunlap, L.L. (2009). *In introduction to early childhood special education: birth to age five*. Saddlebrook, NJ: Pearson.
- Freiberg L.K. (Ed.). (2003). *Educating Exceptional Children* (15thed.). McGraw Hill/ Dushkin
- Guralnick, M.J. (Ed.). (1997). *The effectiveness of early intervention*. Baltimore: Paul H. Brookes Publishing.
- Guralnick, M.J. (2001). A framework for change in early childhood inclusion. In M.J. Guralnick (Ed.), *Early childhood inclusion: Focus on change* (pp. 3-35). Baltimore: Paul H. Brookes Publishing.
- Hanson, M.J., & Lynch, E.W. (1989). *Early Intervention: Implementing Child and Family Services for infants and Toddlers who are at Risk*. Austin, TX: PRO-ED
- Kirk, S.A., Gallagher, J.J., & Anastasiow, N.J. (2000). *Educating Exceptional Children* (9thed.). Boston, MD: Houghton Mifflin Company
- Linder, T.W., *Early Childhood Special Education* Brooks Publishing Company Toronto 1983
- M.J. Guralnick (Ed.). (2000). *Interdisciplinary clinical assessment for young children with developmental disabilities*. Baltimore: Paul H. Brookes Publishing Co.
- McWilliam, R.A. (Ed.). (1996). *Rethinking pull-out services in early intervention: A professional resource*. Baltimore: Paul H. Brookes Publishing Co.
- Meisels, S.J., & Shonkoff, J.P. (2000). Early childhood intervention: A continuing evolution. In J.P. Shonkoff & S.J. Meisels (Eds.), *Handbook of early childhood intervention* (2nd ed., pp. 3-31). New York: Cambridge University Press.
- দিবা হোসেন, মোঃ শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: ACSE 390

Course Title: Assessment and Diagnosis for Children with Disabilities

2. Credit Hours: 4

3. Course Description

This course is designed to provide knowledge and understanding to students regarding assessment of children with disabilities. The course will enable students to understand and perform various diagnostic techniques for different disabilities including visual, hearing and neuro-developmental disabilities.

4. Course Objectives

The objectives are to help learners to

- a. be familiar with the basic concept of assessment and diagnosis.
- b. be acquainted with the appropriate assessment system for children who are visually impaired.
- c. be acquainted with the appropriate assessment system for children who are hearing impaired.
- d. understand subjective and objective screening of hearing impaired children
- e. comprehend the screening process and ways to perform the functional assessment for children with Intellectual Disability
- f. enable students to perform hearing and vision test and measuring intelligence using standardized scales.

5. Course Contents

Contact Hours

Unit 1: Diagnosis and Assessment of Children with Disabilities

6

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the differences among Screening, Assessment, Testing and Diagnosis
- b. explain the purpose of assessment and diagnosis of children with disabilities
- c. describe the diagnosis process of Children with Disabilities
- d. illustrate the assessment procedure of Children with Disabilities

Content

- Relation among Screening, Assessment, Testing and Diagnosis
- Concept of Diagnosis of Children with Disabilities
- Concept of Assessment of Children with Disabilities
- Purpose of assessment of diagnosis (medical, social, academic and developmental perspectives)
- Diagnosis Process
- Assessment Procedure
 - The Pediatric Evaluation
 - Psychological and Educational Assessment
 - Objective Test
 - Subjective Test
 - Projective Test

Unit 2: Reliability and Validity in Assessment

5

Learning Outcomes

At the end of this unit learners will be able to

- be acquainted with the concept of reliability and validity
- explain the methods of measuring reliability and validity

Content

- Concept of Reliability
- Concept of Validity
- Methods of Measuring Reliability
- Methods of Measuring Validity
- Validity of Test Versus Validity of Test Use

Unit 3: Overview of Assessment Techniques of Children with Disabilities

5

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the differences between the functional, criterion and standardized assessment
- b. explain the concept of curriculum, performance based and Informal assessment

Content

- Criterion referenced assessment
- Norm referenced assessment
- Curriculum based assessment
- Performance based assessment
- Informal assessment techniques

Unit 4: Assessing Children with Visual Impairment

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the functional visual assessment
- b. describe the different types of visual assessment to pinpoint the loss of vision
- c. explain behavioural observations to determine visual functioning
- d. perform visual assessment using standardized procedures

Content

- Assessment of vision
 - Test of distance vision
 - Test of near vision
 - Field of vision
 - Contrast sensitivity test
 - Color vision test
- Functional vision assessment

Unit 5: Assessing Children with Hearing Impairment

4

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the eligibility of a child through effective screening
- b. describe the process of hearing assessment
- c. explain different pre-requisites for hearing assessment

Content

- Screening test of hearing
- Adaptive Behaviour Scale
- Diagnostic test of hearing
- Pre-requisite for hearing assessment (Hearing assessment center, Readiness, Manipulation of audiometer)

Unit 6: Assessing Children with Intellectual Disability

4

Learning Outcomes

At the end of this unit learners will be able to

- describe the screening system to identify children with intellectual disabilities
- interpret the intellectual level of intellectually disabled children with the intelligence scale

Content

- Screening
- Wechsler Intelligence Scale for Children-Revised
- Stanford Binet Intelligence Scale – Fifth Edition
- Adaptive Behavior Scale: Vineland Scale for Adaptive Behavior

6. Practical

12

Time, duration of practical works will be 12 contact hours, containing 25 marks. The topics of the practical examination will be

- Assessing Vision
- Assessing Hearing
- Measuring intelligence using standardized scales

7. Instructional Strategies

- Lecture
- Discussion
- Group work
- Document review
- Field visit
- Blended approach (online-offline, distance mode)

8. Assessment

- | | |
|---|--------------------|
| a. One In-course Examinations | $15 \times 1 = 15$ |
| b. Semester Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Practical | $= 25$ |

The marks for practical exam will be divided into four parts-

- | | |
|--|----|
| i. Assessment of Vision: | 05 |
| ii. Assessment of Hearing: | 05 |
| iii. Measuring intelligence using standardized scales: | 05 |
| iv. Viva-voce: | 10 |

Along with other requirements, students must have to obtain minimum required marks in Practical to pass the course. Total duration of practical works during whole semester will be equivalent to nine contact hours or specified by the course teacher(s). The practical examination will be initiated by the course teacher/s, however, the examination panel will be composed of one external examiner and the respective course teacher/s.

9. Recommended Books, Journals and Reports

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- Tennyson, R.D. (2010). *Technology Enhanced Learning for People with Disabilities: Approaches and Applications*. Hershey, PA: Information Science Reference.
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- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মোঃ শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা : চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মোঃ শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: ACSE 391

Course Title: Introduction to Autism Spectrum Disorder

2. Credit Hours: 4

3. Course Description:

The course aims to help special education students to learn about Autism Spectrum Disorder (ASD) and what it means to be children with autism. The course is designed for students to understand how to recognize the symptoms of autism and familiarize with the assessment and diagnosis process of children with autism. It will also help to learn about various educational interventions to help teach children with autism how to better communicate and relate to the world. Students will also understand how to deal with a child's tantrums and emotional outbursts in an effective and caring way, so that the child might learn how to express themselves in a more calm and collected fashion.

4. Course Objectives

The objectives are to help learners to

- a. orient the students with areas of normal development and that the child with autism who will be unable to access via the normal affective, spontaneous, intuitional route and thus to provide explicit management.
- b. enable students to understand the underlying causes of autism, to gain knowledge on the pervasive disability that affects almost all areas of individuals functioning and to identify appropriate strategies to reduce or minimize problems.
- c. enable student to promote early intervention and personal attention to stimulate their understanding and interest in the world around them.

5. Course Contents

Contact Hours

Unit 1: Concept of Autism Spectrum Disorder

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe Autism Spectrum Disorder (ASD) as a neurological and developmental disorder
- b. describe the characteristics which complicates the social interaction and communication along with restricted and repetitive behavior

Content

- Autism Spectrum Disorder (ASD)
- Range of characteristics of ASD
 - Pattern of Social Behavior
 - Language Development and Skills
 - Repetitive Behavior and Obsession
 - Sensation or Feelings
 - Special Ability

Unit 2: Potential Causes of ASD

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the theory of causation of ASD
- b. describe different causes of ASD
- c. explain current research related to the causes of ASD

Content

- Historical development: causation theory
- Understanding the causes
 - Genetic risk factors
 - Neurobiological factors
 - Environmental pollutions and toxins
 - Vaccines
 - Nutrition
 - Additional factors in Uterus
- Current research in ASD

Unit 3: Identification and Diagnosis of ASD

8

Learning Outcomes

At the end of this unit learners will be able to

- a. apply the appropriate screening test to identify ASD
- b. describe an effective system for the diagnosis of ASD

Content

- Screening
- Comprehensive Diagnostic Evaluation
 - Observation
 - Interview
 - Diagnostic Tools (M-CAT, DSM 5, ADCL, ADOS)

Unit 4: Management of ASD

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain and understand different behavioral and communication approaches
- b. apply the appropriate management strategies to compensate the disorder
- c. describe the contemporary approaches for management
- d. describe the nature and importance of Crisis management intervention

Content

- Behavioral and Communication Approaches
- Cognitive behaviour therapy
- Sensory integration therapy
- Medications & Diet
- Contemporary Approaches: ABA, AAC, TEACCH, PECS
- Activity of Daily Living (ADL)
- Crisis management intervention

Unit 5: Teaching students with ASD

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different approaches for instruction
- b. describe appropriate strategies for classroom management
- c. describe the techniques for teaching social and functional skills to students with ASD

Content

- Instructional approaches
- Strategies for classroom management
- Strategies for communication development
- Strategies for teaching social skills
- Teaching functional skills

Unit 6: Current global and national support services for student with ASD

4

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze various global practices for supporting ASD
- b. describe national initiatives for supporting ASD

Content

- Best practices worldwide (Portage guide, Early Start Denver Model, Homework Folder, Social Narratives)
- National initiatives (NDD Trust, Autism Resource Center, NAAND, IPNA)

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Group work
- d. Document review
- e. Field visit
- f. Blended approach (online-offline, distance mode)

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Semester Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Abrahams, B., & Geschwind, D. (2008). Advances in autism genetics: On the threshold of a new neurobiology. *Nature Reviews. Genetics*, 9(5), 341-355. doi:10.1038/nrg2346
- Amaral, D., Geschwind, D., & Dawson, G. (Eds.). (2011). *Autism spectrum disorders*. Oxford University Press.
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- Carl, F., & Hardan, A. Y. (2011). Autism spectrum disorders. *Handbook of Developmental Psychiatry*, 463.
- Faras, H., Al Ateeqi, N., & Tidmarsh, L. (2010). Autism spectrum disorders. *Annals of Saudi medicine*, 30(4), 295.
- Fombonne, E. (2009). Epidemiology of pervasive developmental disorders. *Pediatric Research*, 65(6), 591-598.

- Handleman, J. S., & Harris, S. L. (2008). *Preschool education programs for children with autism*. Austin, TX: PRO-ED.
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- Lauritsen, M. B. (2013). Autism spectrum disorders. *European child & adolescent psychiatry*, 22(1), 37-42.
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- Yang, D., Wyk, B.V., McPartland, J., Allen, T., Chapman, S., & Pelphrey, K. (2014). *Neural Mechanism of Behavioral Response to VR-SCT in Young Adults with Autism*. Center for Translational Developmental Neuroscience
- উর্মি চক্রবর্তী, বিশেষ চাহিদা সম্পন্ন শিশু, কোলকাতা: আহেলী পাবলিশার্স।
- দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমি।
- সুনীতি চক্রবর্তী (২০১২), *অটিজম: আমাদের অসাধারণ শিশুরা*. কোলকাতা: আনন্দ পাবলিশার্স।
- মো নাজমুল হক ও মো মাহবুব মোরশেদ (২০১১) *অটিজমের নীল জগত*, ঢাকা: বিশ্বসাহিত্য ভবন।

1. Course Number: ACBE 401

Course Title: Principles of Management

2. Credit Hours: 4

3. Course Description

This introductory course will help students rationalize the basic management practices with regards to several management theories in both local and global context. Students will examine the fundamental roles played by a manager in an organization to achieve short-term and long-term goals. The course also investigates how organizations develop and maintain competitive advantage within a changing business environment influenced by several external and internal factors. The course contents will allow future business teachers to grasp a thorough understanding of the business world and the expected role of a manager.

4. Course Objectives

The objectives are to help learners to

- a. provide the students with the knowledge of the fundamentals of management.
- b. discuss manager's job, management process, managerial role and skill.
- c. discuss traditional and contemporary management issues and challenges.
- d. discuss environmental context of management, planning and decision-making, organizing process, leading process, and controlling process.

5. Course Contents

Contact Hours

Unit 1: Introduction

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts, functions, principles and roles of Management
- b. describe the nature of Management as a discipline
- c. apply ethics and social responsibilities when dealing with Management

Content

- Definition, function, Process, Importance-principles, Skills, Level, Role of Management
- Universality of Management–Management as a Profession–Management as a Science and Art–Efficiency
- Effectiveness in Management–Ethics and Social Responsibility of Management

Unit 2: Theories of Management

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe classical, neo-classical and modern theories of Management
- b. relate and apply their theoretical understanding in practices

Content

- Classical, neo-classical and modern theories

Unit 3: Environment of Management

2

Learning Outcomes

At the end of this unit learners will be able to

- a. describe different types and components of environment in Management
- b. differentiate between internal and external factors of environment

Content

- Concept-Types and Components of Environment
- Internal & External -Managing the Environment

Unit 4: Planning

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts, characteristics, tools and process of planning
- b. illustrate the types and steps in planning tools and techniques for planning
- c. explore and analyze the characteristics, process benefits and weakness of Management by Objectives (MBO)

Content

- Definition – Nature – Types – Steps in Planning – Tools and Techniques for Planning.
- Objective: Nature – Needs – Characteristics – Management By objective (MBO): Concept, Process, Benefits & Weaknesses

Unit 5: Decision Making Process

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the process of decision making
- b. explore and analyze various aspects of decision making process (i.e. behavioral aspects, creative decision making, group decision making)
- c. critically analyze various styles of decision making

Content

- Process of Decision Making – Behavioral Aspects of Decision Making, Creative Decision Making, Group Decision Making
- Decision Making Styles

Unit 6: Organizing

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe and analyze the basic concepts related to organizing
- b. explain the role of centralization and decentralization authority
- c. evaluate the process of committee operations and coordination

Content

- Concept-Departmentalization-Span of Control-Organization Structure: Line and Staff Organizations, Matrix Organization-Staffing (HRM)
- Delegation of Authority-Centralization and Decentralization of Authority-Committee: Concept, Reasons, Disadvantages
- Considerations for Successful Operation of Committee-Coordination

Unit 7: Leading

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts, principles and related human factors in managing
- b. describe the different motivation theories
- c. define and apply various concepts including different styles, approach and theories related to leadership

Content

- Concept-Principles – Human Factors in Managing
- Motivation: Concept, Importance Theories, Financial and Non-financial Motivation
- Leadership: Definition, Ingredients, Styles, Approaches / Theories of Leadership

Unit 8: Controlling

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts, importance and types of controlling
- b. identify qualities and requirements for effective controlling
- c. illustrate the process and techniques of controlling

Content

- Concept-Importance-Types
- Qualities of / Requirement of Effective Control System
- Steps / Process of Controlling–Techniques of Controlling–Techniques of Controlling

6. Instructional Strategies

- a. Lecture
- b. Discussions
- c. Presentations
- d. Debate
- e. Question answers
- f. Observations
- g. Seminar
- h. ICT integration
- i. Group work

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and reports

Griffin, R.W., *Management*, Houghton Mifflin Company, Boston, USA.

Robert Kreitner, *Management*, Houghton Mifflin Company Boston, USA

Robbins, S.P. and Coulter, M., *Management*, Prentice-Hall of India, India.

Stoner, J.A.F., Freeman, R.E., and Gilbert, D.R., *Management*, Prentice-Hall of India, India.

Weihich, H. and Koontz, H., *Management: A Global Perspective*, McGraw-Hill Book Co. New York.

Supplementary readings will be assigned from the newspapers, magazines, and journals as will be progressed

1. Course Number: ACBE 402

Course Title: Human Resource Management

2. Credit Hour: 4

3. Course Description

Human Resource Management is a specialization within the field of Management that encompasses several functions including the recruitment, selection, and maintenance of a qualified, motivated and productive workforce. The effective performance of these functions requires knowledgeable skills in employment related terms in business stream. The course will also critically examine both ethical and practical functions of HR within organizations.

4. Course Objectives

The objectives are to help learners to

- a. focuses on the strategies of making working people more productive and satisfied.
- b. examines what should be done to develop effective managers and staff specialists who work directly with the human resources of organizations.
- c. covers fundamental HRM activities such as human resources planning, job analysis, job design recruitment and selection of employees, performance evaluation and management, compensation policies and management, employee training and development, and career planning.

5. Course Contents

Contact Hours

Unit 1: Introduction

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts, nature, functions, and growing importance of human resource management (HRM)
- b. analyze the status and contemporary challenges in HRM

Content

- Definition, Nature, Functions, Reasons for growing importance of HRM, Principles, Importance of HRM to all managers, Status of HRM managers
- Contemporary Challenges in HRM

Unit 2: Human resource planning

3

Learning Outcomes

At the end of this unit learners will be able to

- a. describe purposes and processes of HR Planning
- b. explain different factors HR Planning

Content

- Concept, Purposes, Process
- Descriptions of the factors of the HR Planning process

Unit 3: Job analysis and work study

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain basic concepts, and various terminologies related to the work study
- b. describe importance and information required for the work study

- c. write job description and specification
- d. make use of job analysis in context and propose strategies for fostering change

Content

- Concept, Definition of the terminologies for the work study
- Importance, Information required for the work study, Steps, Methods
- Writing Job Description and Specification: contents, drafting. Guidelines for drafting Job Description and Specification
- Job analysis in a jobless world and reasons world and reasons there of, Techniques used to foster the change

Unit 4: Recruitment and Selection

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the basic concepts and process of recruitment
- b. describe Concept, process and standard selection conditions
- c. describe reliability and validity selection
- d. explain common mistakes of interview, guidelines for the interviewer and interviewee

Content

- Recruitment: Concept, factors considered, Sources and their merits and demerits, Innovative source of recruitment, Recruitment process and its discussion;
- Selection: Concept, process and its discussion, Standard selection conditions, Reliability and validity selection
- Interview: Types, common mistakes of interview, guidelines for the interviewer and interviewee

Unit 5: Carrier Transition

3

Learning Outcomes

At the end of this unit learners will be able to

- a. conduct orientation program for employees
- b. explain and analyze different aspects of carrier transition in terms of transfer, promotion, demotion, separation resignation and retirement
- c. describe and determine various factors related to layoff

Content

- Orientation of employee: Concept, Reasons, Characteristics of an orientation program, orientation schedule, problems and its improvement avenues
- Transfer: Concept, Reasons, Types, Impacts
- Promotion: Concept, rationale, Types, Bases, objectives, Involved decision, Devices used in making promotion decision
- Demotion: Definition, Reasons, Impact, Techniques for removing negative impact
- Separation: Discharge: Concept, Forms, Effects, How to overcome the negative effects
- Resignation: Concepts, Handling avenues
- Retirement: Concept, Dos of HR manager
- Layoff: Concept, purpose, Problems, Why out. Managing career changes: Shock, Minimizing ways of shock disciplining employees

Unit 6: Skill Training

3

Learning Outcomes

At the end of this unit learners will be able to

- a. describe and analyze the basic concepts, steps, process, methods and assessing the effectiveness of skill training
- b. apply the principles of learning theories of skill training

Content

- Concept, Steps/process, Methods, Effectiveness evaluation
- Principles of learning theory

Unit 7: Management Development/ Developing Managers

3

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the concept, importance and changing nature of developing managers
- b. design a program considering required key factors, methods and evaluation standards

Content

- Concept, Importance, Changing nature
- Factors considered in designing a program, key factors for success
- Methods, evaluating techniques

Unit 8: Performance Appraisal / Evaluation

4

Learning Outcomes

At the end of this unit learners will be able to

- a. develop and modify appropriate performance Appraisal evaluation criteria for employees
- b. apply appraisal interview techniques in this regards

Content

- Concept, Importance, Purposes, Factors for designing a program, Process, Methods, Who should do performance appraisal, choosing the appraisal methods. Who should do it
- Distortion factors / pitfalls, Suggestions for overcoming pitfalls, Should appraisal be abolished
- Appraisal Interview: Purposes, Procedure, How to conduct, How to handle a defensive subordinate, How to criticize a subordinate. How to handle a formal written warning to be given to poor employee

Unit 9: Wages and Salary Administration

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concepts, steps and methods of job evaluation
- b. explain concepts, goals, consideration and process of establishing pay plan
- c. explain current issues of incentive payments

Content

- Job Evaluation: Concept, Steps, Methods
- Establishing Pay Plans: Concept, goals considerations, Process
- Incentive Payments and Current Issues

Unit 10: Employee Benefits

2

Learning Outcomes

At the end of this unit learners will be able to

- a. Evaluate different aspects of benefit management for the employees

Content

- Concept, Process of determination, Goals, Importance, Types, Benefits Managements

Unit 11: Employee Safety and health

2

Learning Outcomes

At the end of this unit learners will be able to

- a. adapt appropriate policies of safety and health measures
- b. minimize risk factors and introduce remedial action for Safety and health

Content

- Concept of Safety and health, factors to be considered in designing the program.
- Elements of a sound safety and health program, Role of supervisors, Accidents: causes, prevention
- Health: Hazards, managerial remedial actions

6. Instructional Strategies

- a. Lecture
- b. Discussions
- c. Presentations
- d. Institution visit
- e. Debate
- f. Question answers
- g. Observations
- h. Seminar
- i. ICT integration

7. Assessment

- | | |
|---|-------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 +40= 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and reports

DeCenzo and Robbins, *Personal/Human Resource Management*, Prentice-Hall, New Delhi.

French, Wendell, *Human Resource Management*, Houghton Mifflin Co., Boston.

Gary Dressler, *Human Resources Management*, Prentice-Hall, India.

Werther, William B. and Davis, Keith, *Human Resource Management*, Irwin- McGraw Hill Co. Boston.

1. Course Number: ACBE 403

Course Title: Organizational Behavior

2. Credit Hours: 4

3. Course Description

The course examines the nature and importance of organizational behavior with focus on individual and group behavior as well as effect of organization system on human behavior in organizations. It covers the foundations of individual and group behavior, perception, values, attitudes, personality, job satisfaction, motivations work-teams, leadership, communication, power and politics, inter-group behavior, organizational culture, and organizational dynamics.

4. Course Objectives

The objectives are to help learners to

- a. acquaint students with the nature and importance of organizational behaviors focusing on individual and group behavior.
- b. develop their capacity/ability to estimate effect of organization system on human behavior in organizations.
- c. enhance their ability to interpret the foundations of individual and group behavior, inter-group behavior along with relevant aspects of behavior, organizational culture and organizational dynamics.

5. Course Contents

Contact Hours

Unit 1: Fundamentals of Organizational Behavior

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept and causal sequence in behavior
- b. analyze the factors affecting behavior
- c. explain the meaning, elements, goals, importance and forces of organizational behavior
- d. analyze the nature of man (in relation to organizational behavior)
- e. explain the concept and nature of organization
- f. discuss and differentiate among the models of organizational behavior

Content

- Behavior: Concept, Causal sequence in behavior, Factors affecting behavior
- Organizational Behavior: Meaning, elements, goals, importance, forces; Nature of man
- Organization: Concept of organization and its nature
- Management: definition, elements, functions, roles, skills and characteristics of effective and successful managers
- Models of Organizational Behavior: Systems concept, organizational behavioral system, elements of the system, models of OB

Unit 2: Perception, attitude, frustration

4

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the concepts, characteristics, factors and impacts on perception, attitude and frustration

Content

- Concepts, characteristics, factors, functions, impacts on performance

Unit 3: Group Behavior

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain definition, nature, formation and types of groups
- b. estimate/analyze the characteristics of an effective team and its implication on organization
- c. illustrate the meaning, components and significance of morale
- d. interpret interrelationships between morale and productivity

Content

- Definition, nature, formation, types of group; formal and informal group
- Team-nature, types, implementing team in organization, characteristics of effective team, making a team effective
- Implication on organization
- Morale: Meaning and Significance-Causes of Low and High morale-Morale and productivity-Morale components-Group more-maintaining morale-Measurement of morale-Diagnosis of morale

Unit 4: Power and Politics

3

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss/elaborate fundamentals of power and politics
- b. justify the exercise of power in workplace
- c. estimate the implications of politics (in the workplace)

Content

- Power: concepts, bases, dependency, tactics, power in workplace
- Politics: definition, nature, implications

Unit 5: Leadership

4

Learning outcomes

At the end of this unit learners will be able to

- a. discuss the nature of leadership
- b. explain the qualities of a good leader
- c. describe the types of leader
- d. explain the power and sources of power of a leader
- e. outline/interpret the approaches to leadership
- f. determine/design how to make leadership effective

Content

- Nature, qualities of a leader, formal and informal leader
- Power of leader-definition, sources of power
- Approaches to leadership, making leadership effective

Unit 6: Interpersonal Behavior

4

Learning outcomes

At the end of this unit learners will be able to

- a. discuss nature, levels, types and sources of conflict in an organization
- b. estimate outcomes of conflict in an organization
- c. find out the ways to resolution of conflict in an organization

Content

- Conflict in organization: Nature, levels, types, sources, effects/outcome, and resolution of conflict

Unit 7: Job Satisfaction

2

Learning outcomes

At the end of this unit learners will be able to

- a. illustrate concepts and factors of job satisfaction
- b. determine effects on employee effectiveness

Content

- Concept, factors, effects on employee effectiveness

Unit 8: Personality, Emotions and Values

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain concept, components, types and sources of value
- b. interpret concepts, dimensions, constraints and implications of emotions
- c. explain nature, dimensions, types and theories of personality

Content

- Value: concept, components, types, sources
- Emotions: concepts, dimensions, constraints and implications
- Personality: nature, dimensions, types, and theories

Unit 9: Motivation

4

Learning Outcomes

At the end of this unit learners will be able to

- a. illustrate concept, characteristics and theories of motivation
- b. assess organizational implication of motivation

Content

- concept, characteristics, theories, organizational implication

Unit 10: Organization Culture

4

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the concept, types and dimensions of culture
- b. analyze the significance of understanding the culture
- c. interpret the concept of organizational culture and its characteristics
- d. identify and interpret the techniques of installing organizational culture
- e. discuss the models of culture

Content

- Concept of culture, dimensions, significance of understanding
- Types of culture; Concept of organizational culture
- Characteristics, techniques of instilling
- Models of organizational culture

Unit 11: Stress and Counseling

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept, causes and approaches to stress management
- b. interpret the concept, needs, types and approaches to counseling for stress management

Content

- Stress: concept, causes, approaches to stress management
- Counseling: concept, need, types approaches to counseling

6. Instructional Strategies

- a. Lecture
- b. Discussions
- c. Presentations
- d. Institution visit
- e. Debate
- f. Question answers
- g. Observations
- h. Seminar
- i. ICT integration

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Davis, K. and Newstrom, John W., *Organizational Behaviour: Human Behavior at Work*, McGraw-Hill, New York.

Kreitner Robert and Kinicki, Angelo, *Organizational Behaviour*, IRWIN McGraw-Hill, Boston.

Robbins, S.P., *Organizational Behaviour*, Prentice-Hall of India, New Delhi.

Moorhead Gregory, and Griffin, Ricky W. *Organizational Behaviour: Managing People and Organizations*.

1. Course Number: ACBE 404

Course Title: Entrepreneurship Development and SME Management

2. Credit Hours: 4

3. Course Description

Entrepreneurship Development examines entrepreneurship theories, new venture creation process, identification and assessment of opportunities, entrepreneurial start-up strategies, business plan, strategies for entrepreneurial organizations, and role of entrepreneurship in large organizations. SME Management deals with the concepts of SME, starting strategies of SME Self-analysis, idea generation and testing, project selection process and techniques, management of SME and SME support services.

4. Course Objectives

The objectives are to help learners to

- a. enhance students' knowledge and understanding about fundamental aspects of entrepreneurship development.
- b. develop their skills and competencies for formulating strategies of entrepreneurial organizations.
- c. make them competent to estimate the role of entrepreneurship in large organizations.
- d. acquaint them with the fundamentals of SME management.
- e. support them with pragmatic knowledge, understanding and skills for project selection processes and techniques.
- f. make them able for managing SME and SME support services.

5. Course Contents

Contact Hours

Unit 1: Fundamentals of Entrepreneurship Development

4

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the meaning and types of entrepreneurship
- b. distinguish between entrepreneur versus manager
- c. formulate entrepreneurial profile
- d. justify entrepreneurship as a critical resource
- e. assess the role of entrepreneurship in economic development

Content

- Meaning and nature of entrepreneurship
- Entrepreneur versus manager
- Types of entrepreneurship
- Entrepreneurial profile
- Entrepreneurship as a critical resource
- Role of entrepreneurship in economic development

Unit 2: Theories of entrepreneurship

4

Learning Outcomes

At the end of this unit learners will be able to

- a. interpret different theories of entrepreneurship

Content

- psychological theories, socio-psychological and cultural theories, opportunity and background variables and entrepreneurship

Unit 3: Entrepreneurial ventures

5

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze start-up issues, generating and evaluating business ideas entrepreneurial ventures
- b. discuss competitors' information
- c. formulate planning the venture – developing and writing business plan
- d. assess legal issues relating to start-up and operations of entrepreneurial ventures

Content

- Start-up issues, generating and evaluating business ideas
- Competitor's information
- Planning the venture – developing and writing business plan
- Legal issues relating to start-up and operation

Unit 4: Entrepreneurship in the Less developed Countries

2

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the special dimensions of rural entrepreneurship and women entrepreneurship

Content

- An overview-special dimensions of rural entrepreneurship and women entrepreneurship

Unit 5: Fundamentals of SME Entrepreneurship

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of small business and economic development
- b. discuss the stages of growth of small business
- c. explain the role of small business
- d. analyze the problems of small business development
- e. explain entrepreneurship training as an aid to small business

Content

- Defining small business, small business and economic development
- Stages of growth, the role of small business
- Problems of small business development
- Entrepreneurship training as an aid to small business

Unit 6: Starting a new venture, buying existing business

4

Learning Outcomes

At the end of this unit learners will be able to

- a. find out the strategies for protecting intellectual properties
- b. be able to choose a product or service for starting a new venture
- c. be able to evaluate an existing business
- d. analyzes where to acquire a failing business
- e. assess the issue of goodwill value

Content

- Protecting intellectual property
- Choosing a product or service
- Evaluating an existing business
- Acquiring a failing business
- The issue of goodwill value

Unit 7: Forms of business Ownership and Franchising:

3

Learning Outcomes

At the end of this unit learners will be able to

- a. interpret the concepts of sole proprietorship, partnership, joint stock company
- b. discuss the types of Franchising, myths about Franchising
- c. discuss the criteria for selecting and Franchising
- d. prepare a Franchising agreement

Content

- The sole proprietorship, the partnership, the joint stock company
- Franchising: types of Franchising, myths about Franchising, selecting and franchising, and Franchising agreement

Unit 8: Planning and control:

2

Learning Outcomes

At the end of this unit learners will be able to

- a. interpret profit planning and break-even analysis
- b. discuss make or buy decision
- c. estimate the budget
- d. discuss cost control responsibility, performance measurement and variance analysis

Content

- Profit planning and break-even analysis
- Make or buy decision
- The budget
- Cost control responsibility, performance measurement, variance analysis.

Unit 9: Choosing the right location and layout:

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain layout criteria for retail and service business
- b. select the location decision for manufacturers
- c. choose layout and design considerations

Content

- Layout criteria for retail and service business
- The location decision for manufacturers
- Layout and design consideration

Unit 10: Sources of financing

4

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the issue of small business financing
- b. select financing options and financial analysis

Content

- The issue of small business financing
- Financing options and financial analysis

Unit 11: Demand forecasting, production and marketing

4

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze forecasting methods and choose the right forecasting method
- b. discuss and select production strategy and marketing strategy
- c. review global marketing strategies

Content

- Choosing the right forecasting method
- Production strategy, marketing strategy
- Global marketing

Unit 12: Small business in Bangladesh:

2

Learning Outcomes

At the end of this unit learners will be able to

- a. review the Government policies critically
- b. discuss and identify the institutional supports
- c. analyze the role of BSIC

Content

- Government policies
- Institutional support
- Role of BSIC

6. Instructional Strategies

- a. Lecture
- b. Discussions
- c. Presentations
- d. Institution visit
- e. Debate
- f. Question answers
- g. Observations
- h. Seminar
- i. ICT integration

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and reports

Siropolis, N., *Entrepreneurship and Small Business Management*, Houghton Mifflin Company, N.Y.
Zimmerer, T.W. and N.M. Scarborough, *Essentials of Entrepreneurship and Small Business Management*, Prentice-Hall of India, New Delhi.
Holt, D., *Entrepreneurship: A New Venture Creation*, Prentice-Hall Inc., N.J., U.S.A.
Kent, R. B., *Entrepreneurship: Process and Management*, Prentice-Hall Inc., U.S.A.
Hisrich, P., *Entrepreneurship*, Tata McGraw-Hill Publishing Company Limited, New Delhi.

1. **Course Number: ACBE 405**
Course Title: Introduction to Business
2. **Credit Hours: 4**
3. **Course Description**

This course will introduce students in the fields of business and management and teach the role business plays in our society. The course offers an overview of basic business and management concepts, terminologies, institutions, practices, and operations. It will examine the various aspects of business management and their relationships with each other. Apart from familiarizing the students with the knowledge of general business terms, concepts, and theories, this course will help provide them with an overview of the necessary skills and abilities needed to succeed in an academic context of business.

4. **Course Objectives**

The objectives are to help learners to

- a. enhance critical thinking ability through various types of problem oriented case analysis and basic business learning.
- b. develop global thinking abilities as various factors necessary for cultivating a business in a diverse global environment will be described and discussed.
- c. improve communication skills through written and oral presentation assignments, peer discussion and team works.
- d. utilize computer skills through internet, word processing, power point and other supporting materials for effective visual presentation(s).

5. **Course Contents**

Contact Hours

Unit 1: Core Concepts of Business

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of business
- b. define various business vocabularies
- c. describe the scope of business
- d. illustrate the underpinning philosophy of business
- e. describe and infer the challenges in forms of business

Content

- Introduction, Meaning and Scope
- Product, Services, Business
- Revenues, Profits, and Losses
- Standard of living and quality of life
- Stakeholders and Business Environment
- Profit and Non-Profit Business
- Business Environment

Unit 2: Economics Conditions

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain analyze the role of macro and micro factors affecting business decision making
- b. interpret the various types of economies and their influence on business and consumption
- c. evaluate global business trends and present their benefits on society

Content

- Economy and Business
- Types of Economy
- Business in Developing Nation Vs Developed Countries
- Three Domains and Commerce Education
- How Business benefit society
- Global trend of business

Unit 3: Business Ethics

....

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the basics of business ethics
- b. compare legal and ethical spheres of business
- c. analyze ethical dilemma prevalent in business institutions
- d. present the importance of Corporate Social Responsibilities

Content

- Introduction and Concept of Ethics
- Issues of Business Ethics
- Legal Vs. Ethical dilemma
- Ethical Movements
- Corporate Social Responsibilities
- Sustainable business

Unit 4: Forming a Business

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different types business ownerships and compare their effectiveness
- b. analyze business expansion techniques
- c. describe various types of business structures

Content

- Basic forms of Business Ownership
- Sole Partnership
- Partnership
- Corporations
- Expansion- Franchise, Licensing, Cooperative

Unit 5: Management and Leadership

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of management and leadership
- b. describe management functions and application on everyday business
- c. develop planning and decision making strategies to lead and control organization

Content

- Concept of Management and Leadership
- Function of Management
- Planning and decision making
- Leading and Controlling

Unit 6: Human Resource Management

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the ways business requires to work with people
- b. describe various Human Resource issues in business world
- c. illustrate pre-existing and forthcoming HR challenges in business world
- d. analyze the recruitment process of an organization
- e. employ various training, development and evaluation activities for an organization

Content

- Working with People
- HR Issues in Bangladesh and beyond
- The Human Resource Challenge
- Recruitment Process
- Training, Development and Evaluation of Employees

Unit 7: Marketing

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the concepts of marketing
- b. demonstrate various marketing terms and usage in business
- c. explain the importance of segmenting a target market in order to position the market offering

Content

- Concept of Marketing
- Evaluation of Marketing
- Marketing Mix
- SWOT and PESTEL
- Segmentation, targeting & Positioning

Unit 8: Accounting and Financial Information

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss accounting and financial decision process in business
- b. list and explain the significance of accounting and finance
- c. explain the role of accounting cycle
- d. discuss various key financial terms to analyze a financial statement

Content

- Concept of Accounting and Finance
- Different Accounting disciplines
- Steps in Accounting Cycle
- Understanding key financial statements

Unit 9: Financial Management

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. evaluate the extent finance manager's role in business
- b. explain various financing activities
- c. explain how ethical governance is needed for sustainable business

Content

- Role and responsibilities of financial managers
- Different sources of short term financing
- Different sources of long term financing
- Share Market
- Ethical Corporate Governance

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation
- f. Debate
- g. Project method
- h. Role playing etc.

7. Assessment

- | | |
|---|----------|
| a. Two In-course Examinations | 15×2=30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Additional books and materials
 Bangladesh Curriculum of Commerce
 National University Syllabus of Commerce subjects
 Teaching of Commerce- Dr. Y.K. Singh.APH Publishing Corporation

1. Course Number: ACBE 406

Course Title: Principles of Marketing

2. Credit Hours: 4

3. Course Description

This course introduces the students to the world of marketing. Starting off with the key concepts of marketing, the course is also a survey of the marketing function of the organization, including the marketing environment and target markets, marketing strategy with emphasis on the marketing mix and social and ethical responsibilities of marketing. Students are expected to present thorough concept on market and demand to determine product perception and marketing to target consumers.

4. Course Objectives

The objectives are to help learners to

- a. develop marketing decision-making skills through careful study and discussion of a number of marketing cases.
- b. understand and apply basic marketing concepts through careful reading of the text assignments.
- c. learn the basic principles of marketing.
- d. understand the marketing foundation and environment along with its ethical and social responsibility.
- e. discuss the various elements of marketing mix and their importance in business decision.
- f. outline the Integrated marketing communication process.
- g. understand different aspects involved with effective marketing strategy like creativity and others.

5. Course Contents

Contact Hours

Unit 1: Core Concepts of Marketing

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of marketing
- b. tell the functions and importance of marketing
- c. describe the scope of marketing
- d. illustrate the underpinning philosophy of marketing
- e. describe and infer the challenges of 21st century marketing

Content

- Introduction, Meaning and Scope
- Product, Services, Business and Markets
- Creating and capturing customer value
- Core Marketing Concepts

Unit 2: Marketing Management Orientation

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain analyze the role of macro and micro factors affecting marketing decision making

- b. interpret the effectiveness of Boston Consulting Group for analyzing the market performance of brands
- c. evaluate products' strength, weakness, opportunities and threats

Content

- SWOT (Strength, Weakness, Opportunity and Threat)
- Macro Vs. Micro Markets
- BCG Matrix
- Marketing Mix theory

Unit 3: Consumer Markets

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. formulate marketing strategies that incorporate psychological and sociological factors that influence consumers
- b. to collect, process, and analyze consumer data to make informed marketing decision

Content

- Consumer buying behavior
- Consumer markets vs. Industrial markets
- Characteristics that affect consumer behavior
- Types of buyer decision making process

Unit 4: Market Segmentation, Targeting and Positioning

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different types of segmentation options
- b. analyze different target markets and its influence on marketing decision making
- c. design effective positioning strategy for new markets

Content

- Marketing in mass market
- Market Segmentation- Demographic, geographic, psychographic, behavioral
- Market targeting- differentiation, focus, cost
- Market positioning- Price vs. quality matrix, Value perception

Unit 5: Marketing Mix (4Ps)

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the marketing-mix concepts
- b. categorize marketing mix model as per 4Ps (product, price, place promotion) and extend to 7Ps (people, process and physical environment)
- c. develop marketing strategies based on 4Ps and 7Ps

Content

- Marketing Mix concepts
- Product, Price, Place and Promotion
- 7Ps of Marketing

Unit 6: Products and Brands

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts and levels of product as good, services and ideas
- b. distinguish different types of products
- c. examine Product Life Cycle and able to recommend appropriate strategy at each stage

Content

- Products as problem solvers
- Products vs. services
- Product Life Cycle
- Branding strategy

Unit 7: Promotion Strategy

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. create an integrated communications plan which includes promotional strategies and measures of effectiveness
- b. evaluate different aspects of promotional strategies for different types of brands

Content

- Concept of Marketing
- Evaluation of Marketing
- Marketing Mix
- SWOT and PESTEL
- Segmentation, targeting & Positioning

Unit 8: Pricing Strategies

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of pricing decisions to the economy and to the individual firm
- b. list and explain a variety of pricing objectives
- c. explain the role of demand in price determination
- d. discuss various distribution channel and value chain activities covering wholesalers to retailers to end consumers

Content

- Considering pricing criteria and approaches
- Factors of pricing strategies
- Major pricing methods
- Product mix pricing strategies

Unit 9: Societal Marketing

....

Learning Outcomes

At the end of this unit learners will be able to

- a. evaluate the extent of social responsibilities of marketing
- b. recommend the marketing strategies for non-profit organizations

- c. explain how relationship marketing affects long term profit potential for a firm
- d. analyze marketing problems and provide solutions based on a critical examination of marketing information

Content

- Role and responsibilities of Marketing Managers
- Consumerism
- Ethical issues of business
- Ethical Corporate Governance

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation
- f. Debate
- g. Project method
- h. Role playing etc.

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20+40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Additional Books and materials.

Gary Armstrong.

Principles of Marketing.

Philip Kotler.

1. Course Number: ACBE 407

Course Title: International Business

2. Credit Hours: 4

3. Course Description

International Business course focuses on the concept of global dimensions of business as a system and the theories which underlie it. It also examines national governmental and international institutional controls and constraints, which impact the environment in which the system operates. It also includes classes that address topics such as imports and exports and intercultural communication needed in global business arena.

4. Course Objectives

The objectives are to help learners to

- a. understand the main drivers of globalization, appreciate the changing nature of global economy and familiarize with the processes of globalization is creating opportunities and challenges for business managers.
- b. identify the business and economic implications if differences in culture and develop an appreciation for the economic and business implications of cultural change.
- c. be familiar with the different theories explaining trade flows between nations and understand the important implications that international trade theory holds for business practice
- d. be familiar with the current trend regarding FDI in the world economy and understand the benefits of FDI to both home and host countries. Be able to articulate the implications for management practice of the theory and government policies associated with FDI.
- e. understand the economic and political arguments for and against regional economic integration and be familiar with the history, current scope, and future prospects of the world's most important regional economic agreements.
- f. understand how pressures for cost reductions and pressures for local responsiveness influence strategic choice and be familiar with different strategies for competing globally and their pros and cons.
- g. be familiar with the advantages and disadvantages of the different modes that firms use to enter foreign markets and identify the factors that influence a firm's choice of entry mode.

5. Course Contents

Contact Hours

Unit 1: Drivers of International Business and Globalization

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of market expansion reasoning
- b. present the functions and importance globalization and its effects
- c. describe the scope of globalization in terms of drivers and forces

Content

- Rationale for market expansion
- Globalization meaning, pros, cons and reality
- Standardization Vs. Adaptation
- Drivers and forces of globalization
- Cost of Globalization

Unit 2: Differences in Culture and Ethics in International Business

...

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the importance of culture on business
- b. list and evaluate the determinants of cultures on business
- c. illustrate the dimensions of cultures on business dealings
- d. explain the ethical issues prevailing in international business

Content

- Culture, Values, Norms, Tradition
- Determinants of Culture
- Dimensions of Culture
- Ethical issues
- Ethical dilemma
- Inappropriateness of ethical conduct around the world- Strawmen doctrine

Unit 3: International Trade Theories

...

Learning Outcomes

At the end of this unit learners will be able to

- a. formulate the economic theories that partake in making business decisions for managers
- b. analyze the effect of economic theories on international business

Content

- Economics and International business
- Free trade and absolute advantage
- Mercantilism, zero-sum game
- Comparative Advantage
- PLC and new trade theory
- National competitive advantage

Unit 4: Regional Economic Integration

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain different types of market integration
- b. rationalize and relate the differences of different types and levels of integration
- c. design trade strategies according to market integration

Content

- Rational for integrations
- Economic Vs. political integration
- Levels of integration
- Trade creation and trade diversion

Unit 5: The Strategies of International Business

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the international business strategies

- b. develop major international strategies and their implications on business
- c. demonstrate the meaning of pressure for cost reduction and pressure for local responsiveness

Content

- Strategies and business
- Profitability and profit growth
- Local responsiveness Vs. Pressure for cost reduction

Unit 6: Entry strategies

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts and levels entry decisions and entry modes
- b. distinguish different types of entry modes
- c. compare the advantages and disadvantages of various modes of market entry strategies

Content

- Market entry decisions
- Modes of entry
- Advantages of market expansion
- Disadvantages of market expansion

Unit 7: Foreign Direct Investment (FDI)

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different terms to explain FDI in market place
- b. analyze the changing trends in market for FDI that affect global business decision
- c. explain different types of FDI options in developed and emerging economies
- d. present the differences between vertical and horizontal integration

Content

- Terms in FDI
- Trends in FDI
- Services Vs. Production
- Forms of FDI
- Market Imperfections

Unit 8: Production and Logistics

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of pricing decisions to the economy and to the individual firm
- b. list and explain a variety of pricing objectives
- c. explain the role of demand in price determination
- d. discuss various distribution channel and value chain activities covering wholesalers to retailers to end consumers

Content

- Basic terms in procurement
- Productivity model
- TQM/Six Sigma
- Factors behind production decision

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-Work
- d. Group Discussion
- e. Individual Presentation
- f. Debate
- g. Project Method
- h. Role Playing etc.

7. Assessment

- | | |
|---|------------|
| a. Two In-course Examinations | 15 × 2 =30 |
| b. Course Final Examination (MCQ + Essay) | 20+40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Basic textbook

Charles. W. L. Hill. *International Business: Competing in the Global Marketplace*. 10th Edition, McGraw- Hill.

Textbooks

Alan Sitkin & Nick Bowen. *International Business: Challenges and Choices, 1st Edition*, Oxford University Press Inc., New York.2010.

Rakesh Mohan Joshi. *International Business* (2010, Oxford University Press.

In addition to the assigned text material, we will discuss case studies and relevant news about ongoing Global Business.

1. Course Number ACBE 408

Course Title: Business Communication

2. Credit Hours: 4

3. Course Description

Business Communication introduces the students to a variety of technical and business writing theories and practices designed to be applicable to the production of business communication in the real world. It teaches the fundamentals of good business writing, including protocols for business letters, memoranda, electronic mail, good and bad messages, persuasive messages and formal reports and proposals. In addition, there will be instruction in oral presentation and in depth practice on both an individual and a collaborative basis. Students will learn how to enhance their business communication with technically based media.

4. Course Objectives

The objectives are to help learners to

- a. understand and demonstrate writing and speaking process through invention, organization, drafting, revision and presentation.
- b. understand the importance of specifying audience and purpose and to select appropriate communication choices.
- c. participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
- d. develop the ability to research and write a report and give an oral presentation.

5. Course Contents

Contact Hours

Unit 1: Introduction to Communication Basic

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of communication
- b. tell the functions and importance of communication
- c. describe the model of communication

Content

- Communication defined
- The process of communication/ Model of Communication Process
- Communication environment
- Communication barriers

Unit 2: Foundation of Language

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. explain analyze the role of macro and micro factors affecting communication form language
- b. describe the process of language and human progress

Content

- The role of opinions, attitudes and beliefs
- Language and human progress
- Nature and language
- Influence of perception and types of language tome on communication

Unit 3: Public Speaking and Presentation skills

Learning Outcomes

At the end of this unit learners will be able to

- a. formulate presentation strategies
- b. to collect, process, and analyze consumer data to make informed communication plan

Content

- Effective public presentation skills
- Audience analysis
- Effective argumentation skills
- Interview skills

Unit 4: Persuasive techniques for conversations

Learning Outcomes

At the end of this unit learners will be able to

- a. identify effective persuasion techniques
- b. explain communication appeals and reflect on presentations and negotiation situations

Content

- Strategies for effective persuasive communication
- Persuasive communication appeals (pathos, logos, ethos)
- Persuasive communication and promotion of organization

Unit 5: Business Writing

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the written communication techniques
- b. categorize different types of written communication tasks in business/ organization
- c. develop writing capacities based on need

Content

- Memos
- Reports
- Proposals
- Press releases
- Circulars, etc
- Plain English in corporate communication

Unit 6: On Job Communication -interview, application and aptitude tests

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts of job related communications
- b. distinguish different types of job application communications both off-line and online

Content

- CV
- Cover letter writing

- Interview questions
- Online form
- Minutes taking
- Proof-reading
- Ice-breaking
- Communication Courtesy

Unit 7: Listening Skills

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. create an integrated communications plan which includes strategic listening techniques

Content

- Listening Practice in Language Lab
- Counseling skills

Unit 8: Other Forms of Business Communication

.....

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance non-verbal communications
- b. list and explain a variety non-verbal communication techniques
- c. explain the role of Communication activities

Content

- Public Speaking and Oral Reporting
- Communication Activities
- Nonverbal Communication

Unit 9: Business Report Writing

.....

Learning Outcomes:

At the end of this unit learners will be able to

- a. write business reports both short and long
- b. analyze and critically produce case studies
- c. present the report and analyze others' reports

Content

- Report Orientation
- Purpose, Statement of Problem, Topics/Subtopics
- Interpreting information
- Short Vs. long reports
- Use of illustration in reports

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion

- e. Individual Presentation
- f. Debate
- g. Project method
- h. Role playing etc.

7. Assessment

- | | |
|---|------------|
| a. Two In-course Examinations | 15 × 2 =30 |
| b. Course Final Examination (MCQ + Essay) | 20 +40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Comford, J., Revell, R. & Scott, Ch. (2007) Business Reports in English. U.K. Cambridge University Press.

Diamantis, G. (2013) English for Business Communication. Athens: Fedimos Publications.

Chiotis-Lesowitch, I. (2008) International Commercial Correspondence. Athens: P.I. Publishing.

Koutsoyanni, E. (2015) Selected Elements of Written and Oral Communication. Course notes.[Online]Available at: <http://moodle.teipir.gr/course/view.php?id=140>

1. Course Number: ACBE 409

Course Title: Principles of Accounting

2. Credit Hours: 4

3. Course Description

The course is concerned with developing foundation knowledge and understanding of principles and practices of financial accounting; identifying, recording and processing transactions; preparing financial statements to meet the various needs of different stakeholders. This course also covers the various techniques to analyze the financial information for decision making.

4. Course Objectives

The objectives are to help learners to

- a. understand the basic concepts of accounting, accounting process and application of conceptual framework of accounting.
- b. apprehend different elements of financial statements.
- c. solve different accounting problems.
- d. analyze the information communicated through the financial statements.

5. Course Contents

Contact Hours

Unit 1: Introduction

2

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand the accounting and its branches
- b. apprehend uses and users of accounting information and nature of business and accounting
- c. explain the role of accounting profession and ethics in financial reporting

Content

- Definition of Accounting
- Branches of Accounting
- Uses and users of accounting information
- Nature of Business and Accounting
- Role of Accounting Profession,
- Professional accounting bodies in Bangladesh/ Accounting career opportunities
- Ethics in Financial Reporting, GAAP, IASB, FASB

Unit 2: Accounting Standard and Guidelines

4

Learning Outcomes

At the end of this unit the learners will be able to

- a. explain the objectives of general purpose financial reporting and qualitative characteristics of accounting information
- b. identify the elements of financial statements and measurement of their components
- c. explain the concept of capital and capital maintenance

Content

- The objectives of General Purpose Financial Reporting
- Qualitative characteristics of useful financial information

- Underlying assumptions
- The elements of financial statements
- Recognition, De-recognition and Measurement of components of financial statements
- Presentation and Disclosure
- Concept of Capital and Capital Maintenance

Unit 3: Double Entry System

3

Learning Outcomes

At the end of this unit the learners will be able to

- describe the events/transactions and characteristics thereof
- analysing transactions using the basic accounting equation

Content

- Events and Transactions
- Characteristics of transactions
- Basic Accounting equation
- Transaction analysis using accounting equation

Unit 4: The Recording Process

5

Learning Outcomes

At the end of this unit the learners will be able to

- describe the debit and credit rules and accounting cycle
- analyze accounts
- preparation of Journal, Ledger and Trial Balance

Content

- Debit and Credit rules
- Accounting Cycle
- Accounts and Chart of accounts
- Journal, Ledger and Trial Balance

Unit 5: Adjusting entries

3

Learning Outcomes

At the end of this unit the learners will be able to

- understand different accounting bases
- identify different types of adjustment entries
- prepare adjusting entries and adjusted trial balance

Content

- Concept of Year: Fiscal, calendar and accounting year
- Accrual basis and cash basis
- Adjusting entries
- Need for adjusting entries
- Types of adjusting entries
- Adjusting journal entries; and
- Adjusted Trial Balance

Unit 6: Preparation of Financial Statements

3

Learning Outcomes

At the end of this unit the learners will be able to

- a. prepare closing entries and post-closing trial balance
- b. prepare financial statements

Content

- Preparing closing entries
- Preparing post-closing trial balance
- Preparation of Financial Statements

Unit 7: Accounting for Merchandise Operations

5

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand merchandising operations
- b. understand different inventory accounting systems
- c. record transactions for merchandising operations under different inventory accounting systems
- d. prepare Financial Statements of merchandising firms

Content

- Merchandising operations
- Recording transactions for merchandising operations
- Recording transactions for periodic and perpetual inventory systems
- Preparation of multi-step Income Statement and classified Balance Sheet

Unit 8: Accounting for Current Assets

6

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand the nature and concept of current assets
- b. understand the recognition, measurement and recording of current assets

Content

- Cash and Cash Equivalents
- Cash book and bank book
- Bank reconciliation statement
- Nature of inventory
- General basis of inventory measurement
- Inventory valuation methods and calculation procedures
- Types of receivables
- (De)Recognition and valuation of account receivables
- (De)Recognition and valuation of notes receivables

Unit 9: Accounting for Non-current Assets

5

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand the nature and concept of Non-current assets
- b. understand the recognition, measurement and recording of Non-current assets

- c. understand the revaluation and impairment of Non-current assets
- d. explain depreciation methods and disposition of assets

Content

- Classification of Non-current assets (Tangible and intangibles)
- Recognition and measurement (Initial and Subsequent) of property, plant and equipment
- Revaluation of assets
- Impairment of assets
- Concept of Depreciation
- Depreciation: methods and recording
- Disposition of assets
- Disclosure requirements

Unit 10: Analyzing Financial Statements/Interpretation of accounts

4

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand the importance of financial statement analysis
- b. analyze financial statements using different methods

Content

- Objectives of Financial Statements Analysis
- Horizontal analysis of Financial Statements
- Vertical analysis of Financial Statements; and
- Ratio analysis of Financial Statements

6. Instructional strategies

- a. Lecture
- b. Group discussion
- c. Debate
- d. ICT integration

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Accounting Principles by Jerry J. Weygandt, Paul D. Kimmel and Donald E. Kieso published by John Wiley & Sons, Inc., USA.

Other reading materials will be distributed in class.

1. Course Number: ACBE 410

Course Title: Introduction to Management Accounting and Control

2. Credit Hours: 4

3. Course Description

The course is designed to build an understanding of the central role of management accounting and control systems within the organizational context. The course seeks to provide the student with the necessary concepts to get a grasp of the accounting and control mechanisms as well as the practical skills to deal with the management control systems' issues.

4. Course Objectives

The objectives are to help learners to

- a. understand the scope and functions of management accounting and decision making of accounting.
- b. comprehend the basic concepts of costs, importance of cost behavior and their relationship with managerial decision making.
- c. acquaint with cost-volume profit (CVP) analysis and cost management systems.
- d. apprehend the elementary ideas about budgets and budgetary control, and variance analysis of budget.
- e. acquaint with management control systems (MCS) and management control in decentralized and centralized organizations.
- f. identify the cost allocation and the analyze of accounting for overhead costs.

5. Course Contents

Contact Hours
2

Unit 1: Introduction

Learning Outcomes

At the end of this unit the learners will be able to

- a. identify the scope and functions of management accounting
- b. understand the role of accounting in the management process
- c. explain accounting position in the organisation and analyze the standard of ethical conduct

Content

- Definition, scope and functions of Management Accounting
- Accounting and decision making
- The Management Process and Accounting
- Accounting's Position in the Organization and Adaptation to Change
- Standard of Ethical Conduct

Unit 2: Cost Classification and Cost Behaviour Analysis

6

Learning Outcomes

At the end of this unit the learners will be able to

- a. identify the resources and activities related to costs and cost classification
- b. explain the cost behaviour and methods of cost functions
- c. prepare the cost statement and income statement

Content

- Resources, activities, costs, cost drivers, and cost classifications
- Measurement of cost Behavior
- Cost functions and methods of cost functions
- Cost Statement and Income Statement

Unit 3: Cost-Volume Profit Analysis

6

Learning Outcomes

At the end of this unit the learners will be able to

- a. explain the uses of CVP and break-even analysis
- b. describe the mathematical and graphical approach of CVP

Content

- Assumptions and Uses of CVP Analysis
- Limitations of CVP Analysis
- Break-Even Analysis
- Mathematical and Graphical Approach of CVP
- Margin of Safety, Degree of Operating Leverage

Unit 4: Activity-based costing (ABC)

6

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand the cost management system and identify the limitations of traditional costing system
- b. explain the activity-based costing and its application

Content

- Cost Management System
- Traditional Costing System: Application and Limitation
- Activity Based Costing: Concept and Applications
- Comparison of Traditional and ABC Product Costs
- Benefits and Criticisms of ABC

Unit 5: Budgeting

6

Learning Outcomes

At the end of this unit the learners will be able to

- a. illustrate different types of budget
- b. prepare master budget
- c. explore the uses of budget in variance analysis and other decision making

Content

- Budgets and the Organization
- Types of Budgets
- Preparing the Master Budget, Behavioral Aspects of Budgeting
- Using Budgets and variances to evaluate results

Unit 6: Management control system (MCS)

7

Learning Outcomes

At the end of this unit the learners will be able to

- a. explain the management control systems and their goals
- b. understand the concept of balanced scorecard and its relevance for MCS

Content

- Management Control Systems (MCS) and organizational goals
- The Balanced Scorecard: concept and uses
- MCS in service, government and nonprofit organizations

Unit 7: Allocation of Costs

7

Learning Outcomes

At the end of this unit the learners will be able to

- a. understand the nature and importance of cost allocation
- b. apply different methods of allocating service department costs
- c. understand customer as a cost object and measure customer profitability

Content

- Departmental Costs: Concept and Nature
- Allocation of service department costs
- Allocation of costs to product or service cost objects
- Allocation of costs to customer cost objects to determine customer profitability
- Overhead Application: Illustration and Problems

6. Instructional strategies

- a. Lecture
- b. Group discussion
- c. Case-Study
- d. Debate
- e. ICT integration

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Bhimani, A., Horngren, C. T., Sundem, G. L., Stratton, W. O., Burgstahler, D. and Schatzberg, J. (2012) *Introduction to Management Accounting*, 1st Edition, London: Pearson.
- Garrison, R. H., Brewer, P. C. and Noreen, E. (2016) *Managerial Accounting for Managers*, 4th Edition, NY: McGraw-Hill.
- Merchant, K.A. and Stede, W. V. (2017) *Management Control Systems: Performance Measurement, Evaluation and Incentives*, London, Pearson.

1. Course Number: ACBE 411

Course Title: Introduction to Finance

2. Credit Hours: 4

3. Course Description

This course introduces the basic concepts and principles of finance. The material to be covered will include: financial markets and institutions, investments, and managerial finance. The purpose of this course is to introduce the student to basic principles of finance. These principles are the basic knowledge for either a career in corporate finance or further education in investments, real estate, banking, and insurance. It is also an excellent primer for non-finance majors wanting to familiarize with the world of finance.

4. Course Objectives

The objectives are to help learners to

- a. explain the Goal of Financial Management and the conflicts of interest between managers and owners.
- b. compute the future value, present value and the rate of return on an investment for projects that involve single or multiple cash flow(s).
- c. know the important types of bonds and understand the determinants of bond yields.
- d. understand the impact of inflation on interest rates and the term structure of interest rates.
- e. recognize how stock prices depend on future dividends and be able to compute stock prices using the dividend growth model.
- f. understand how financial markets work and know the historical rate of returns and risks on various types of investments.
- g. calculate expected value and standard deviation (risk) of investment returns and understand the risk-return tradeoff.
- h. appreciate the impact of diversification and have a basic understanding of the systematic risk principle.
- i. know the various ways in which capital can be raised and determine a firm's overall cost of capital.

5. Course Contents

Contact Hours

Unit 1: The Role and Environment of Finance

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of finance and its relation to business
- b. identify and illustrate the managerial finance techniques and the functions and goal of the firm for managers
- c. describe the scope of finance and ways manager needs to make decision

Content

- Finance and Business
- The Managerial Finance
- Function-Goal of the firm
- Financial institution and markets

Unit 2: Time value of money

6

Learning Outcomes

At the end of this unit learners will be able to

- a. calculate different financial values
- b. analyze compounding interest and the rationale of using them
- c. interpret the effectiveness of Boston Consulting Group for analyzing the market performance of brands
- d. evaluate special application of time value of money

Content

- Role of time value in finance
- Single amounts
- Annuities-mixed Streams
- Compounding interest
- Special applications of time value

Unit 3: Risk and return

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the fundamentals of risk and return and review the best types for business
- b. review the CAPM model and relate to financial decision making

Content

- Risk and return fundamentals
- Risk of a single asset
- Risk of a portfolio
- Types of risk
- The Model of CAPM (Capital Asset Pricing Model)

Unit 4: Interest rates and bond valuation

5

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different types of interest rates and return summaries
- b. analyze different types of corporate bonds and calculate bond valuation

Content

- Interest rates and required return
- Corporate bonds
- Valuation Fundamentals
- Bond valuation

Unit 5: Stock Valuation

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the decision between debt and equity capital
- b. categorize different types of stock and common stock valuation
- c. develop decision making strategies on common stock value

Content

- Differences between debt and equity capital
- Common and preferred stock
- Common stock valuation
- Decision making and common stock value

Unit 6: Capital Budgeting Techniques

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concepts and techniques used in capital budgeting
- b. evaluate NPV and calculate payback period
- c. appraise internal rate of return calculation for firm

Content

- Overview of capital budgeting techniques
- Payback period
- Net present value (NPV)
- Internal rate of return

Unit 7: Introductory Concepts on Working Capital

5

Learning Outcomes

At the end of this unit learners will be able to

- a. understand the concepts and importance of managing working capital
- b. utilize different tools/techniques of managing working capital

Content

- Working Capital Management Process
- Sources of Working Capital
- Managing Working Capital: Tools and Techniques

Unit 8: Taxation

5

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of pricing decisions to the economy and to the individual firm
- b. list and explain a variety of pricing objectives
- c. explain the role of demand in price determination
- d. discuss various distribution channel and value chain activities covering wholesalers to retailers to end consumers

Content

- Taxation principles
- Kinds of taxes in Bangladesh
- Fiscal policy in Bangladesh
- Scope and meaning of income
- Tax return

6. Instructional strategies

- a. Lecture
- b. Group discussion
- c. Case-Study
- d. Debate
- e. ICT integration

7. Assessment

- a. Two In-course Examinations $15 \times 2 = 30$
- b. Course Final Examination (MCQ + Essay) $20 + 40 = 60$
- c. Assignment/Presentation 10

8. Recommended Books, Journals and Reports

Additional books and materials: As per course teacher's discretion.

Edition Eugene F. Brigham and Joel F. Houston *9th edition; Fundamentals of Financial Management* (with Thomson ONE Business School, Edition) Concise

1. Course Number: ACBE 412

Course Title: Corporate Laws and Governance

2. Credit Hours: 4

3. Course Description

The objective of this course is to explain various laws pertinent to the formation, operation and management of companies. This course will also help students to know about the concept of corporate governance and its practices.

4. Course Objectives

The objectives are to help learners to

- a. understand and apply laws to form, register and operate private and public limited companies.
- b. understand and apply laws to form, register and manage banking companies.
- c. learn the applicable rules and provisions for the financial institutions.
- d. develop an understanding of how the Securities and Exchange Commission (SEC) is functioned.
- e. learn the basic concepts of Corporate Governance.
- f. understand corporate governance code and mechanisms.
- g. learn the fundamentals of corporate ethics and their application.

5. Course Contents

Contact Hours

Unit 1: Introductory Concepts

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of corporate laws and ways to implement on everyday business
- b. compare and analyze the corporate governance issues involved in business and the workplace
- c. describe the scope of corporate governance elements
- d. understand how the market environment and regulations impact corporate governance

Content

- Definition and Importance of learning corporate laws and governance code/ mechanisms
- Theoretical Framework
- Corporate Governance Systems
- Corporate Governance Elements

Unit 2: The Companies Act 1994

5

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze the activities of company formation
- b. understand the administration procedures of a company
- c. evaluate different winding up modes of a company

Content

- Background and Statutory Definitions
- Constitution and Incorporation Management and Administration: Office and Name; Meeting and Proceeding; Directors; Accounts and Audit
- Winding Up: Modes and procedures

Unit 3: The Bank Company Act 1993 and 2013

5

Learning Outcomes

At the end of this unit learners will be able to

- a. understand the licensing of banks and their administration
- b. understand different categories of loans and advances, loan classification guidelines and provisioning

Content

- Business and Licensing of Bank Companies
- Paid-up capital and Reserves
- Appointment and removal of directors and CEO
- Loans and advances: restrictions and provisions
- Operation and Management
- Inspection and Investigation

Unit 4: The Financial Institution Act 1993

2

Learning Outcomes

At the end of this unit learners will be able to

- a. explain ways of licensing financial institutions
- b. identify different types of capital, reserve fund and liquid assets
- c. analyze credit facilities and investment mechanisms

Content

- Licensing of Financial Institutions
- Minimum capital, reserve fund and liquid assets
- Restriction on credit facilities
- Investment

Unit 5: The BSEC Ordinance and Rules

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain stock exchange regulations
- b. categorize different securities
- c. understand the demutualization process

Content

- Registration and regulation of Stock Exchange
- Regulation of Issuers prohibitions and restrictions
- Accounts and Audit
- Listing of a security
- Demutualization of exchanges

Unit 6: Corporate Governance Mechanisms

8

Learning Outcomes

At the end of this unit learners will be able to

- a. analyze how managers are controlled by markets and what roles institutional investors can play
- b. recognize the role of board members, directors and executives within an organization

Content

- Internal Mechanisms: Board of Directors- Size, composition; Board leadership; Splitting the role of Chairman and the CEO; Board Committees- audit committee, nomination committee, remuneration committee; Performance evaluation of BOD
- Internal Control and Corporate Governance: Constituents of internal control statement of internal control; assessing the role of internal audit; ownership structure
- External Mechanisms: monitoring by block holders and analysts; external auditors; competition and takeovers; regulation and enforcement

Unit 7: Corporate Governance Reforms

5

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of different corporate governance approach
- b. explain Corporate Governance reforms and guidelines by the BSEC
- c. explain the best practices of Corporate Governance

Content

- Principle based vs rules based corporate governance approach
- Global best practices of corporate governance: OECD principles; SAFA best practices; UNCTAD corporate governance disclosure requirements
- CG Reforms in Bangladesh
- Voluntary code of BEI and CG guidelines of the BSEC and Bangladesh Bank

Unit 8: Corporate Governance Failure

4

Learning Outcomes

At the end of this unit learners will be able to

- a. learn lessons from failures of corporate governance

Content

- The Collapse of ENRON
- The Collapse of World Com
- The Collapse of Parmalat

Unit 9: Corporate Ethics

5

Learning Outcomes

At the end of this unit learners will be able to

- a. apply corporate governance best practice principles and recommendations to achieve appropriate business practice
- b. analyze and explain economic, social and environmental sustainability issues relating to business practice
- c. discuss various workplace ethical issues prevailing in corporate world

Content

- Corporate ethics vs corporate responsibility
- Promoting and reinforcing corporate ethical culture
- Ethical norms, behavior and internal governance mechanisms
- Ethical leadership from BOD, Code of ethics

- Whistle blowing policies and procedures to support ethical behavior
- Ethical audit

6. Instructional strategies

- Lecture
- Group discussion
- Case-Study
- Debate
- ICT integration

7. Assessment

- | | |
|---|-----------|
| a. Two In-course Examinations | 15×2 =30 |
| b. Course Final Examination (MCQ + Essay) | 20 +40=60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Bangladesh Corporate Governance Code.

Clarke, T. (2007) International Corporate Governance: A Comparative Approach, Routledge.

Financial Institutions Act, 1993.

Solomon, J. (2007) Corporate Governance and Accountability, John Wiley & Sons.

The Companies Act, 1994.

The Bank Company Act, 1991.

The Bank Company (amendment) Act, 2013.

The SEC Ordinance, 1969 and the SEC Rules, 1987.

১. Course Number: TC 131

Course Title: Teaching Language Arts in the Elementary Level

২. ক্রেডিট ঘন্টা: ৪

৩. কোর্সের বর্ণনা

এই কোর্সের মাধ্যমে শিক্ষার্থীরা বাংলা ও ইংরেজি ভাষার শোনা, বলা, পড়া ও লেখার দক্ষতা অর্জনের পাশাপাশি প্রাথমিক বিদ্যালয়ের শিক্ষার্থীদের কিভাবে বাংলা ও ইংরেজি ভাষায় দক্ষতা অর্জন করানো যায় সেসব কলাকৌশল জানতে পারবে। এই কোর্সে প্রথমিক শিক্ষাক্রম, যথাযথ শিক্ষাদান পদ্ধতি ও কৌশল, শিক্ষা উপকরণ এবং ভাষাশিক্ষা মূল্যায়ন সম্পর্কে আলোচনা করা হবে। এ ছাড়াও শিক্ষার্থীদেরকে ইংরেজি ও বাংলা ভাষা শিখন-শেখানো পদ্ধতি, উপকরণের যথাযথ ব্যবহার, পাঠপত্রিকল্পনা প্রণয়ন ও মূল্যায়ন কৌশলের সাথে পরিচিত করানো হবে।

৪. কোর্সের উদ্দেশ্য

- ক. আত্মপ্রকাশ, চিন্তা ও ভাবের আদান-প্রদান এবং শিক্ষার মাধ্যম হিসেবে ভাষার স্থান সম্পর্কে সচেতন করা।
- খ. ভাষাশিক্ষার তাত্ত্বিক ও ব্যবহারিক দিক সম্পর্কে ধারণা প্রদান।
- গ. প্রাথমিক বিদ্যালয়ের ভাষা সম্পর্কিত পাঠ্যক্রমের (বাংলা ও ইংরেজি) সাথে পরিচিত করা।
- ঘ. ভাষা শেখানো (শোনা, বলা, পড়া ও লেখা) পদ্ধতি ও অর্জিত জ্ঞানের মূল্যায়ন কৌশল এবং তা প্রয়োগ করার দক্ষতা অর্জনে সহায়তা করা।
- ঙ. প্রাথমিক বিদ্যালয়ে বাংলা শিক্ষাদানে প্রয়োজনীয় পাঠপত্রিকল্পনা তৈরির কৌশল শেখানো।
- চ. বাংলা ও ইংরেজি শিক্ষাদানে প্রয়োজনীয় শিক্ষাপ্রণয়ন তৈরি, সংগ্রহ ও ব্যবহার শেখানো।

৫. কোর্সের বিষয়বস্তু

শিক্ষণ ঘন্টা

ইউনিট ১: বাংলা শিক্ষণ (শিশু ও ভাষা)

৪

শিখনফল

এই পাঠ শেষে শিক্ষার্থীরা

- ক. শিশুর ভাষা বিকাশের বিভিন্ন স্তর বর্ণনা করতে পারবে
- খ. শিশুর ভাষা বিকাশে পরিবেশ, পরিবার ও স্কুলের দায়িত্ব-কর্তব্য ব্যাখ্যা করতে পারবে
- গ. শিশুর শারীরিক, মানসিক, আবেগিক ও সামাজিক গুণাবলী বিকাশে ভাষার ভূমিকা চিহ্নিত করতে পারবে

বিষয়বস্তু

- শিশুর ভাষা বিকাশের বিভিন্ন স্তর
- ভাষা বিকাশে পরিবেশের প্রভাব, পরিবারের ভূমিকা, স্কুলের দায়িত্ব ও কর্তব্য
- শিশুর শারীরিক, মানসিক, আবেগিক ও সামাজিক গুণাবলীর বিকাশে ভাষার ভূমিকা

ইউনিট ২: বাংলা ভাষা শিক্ষাক্রম

৫

শিখনফল

এই পাঠ শেষে শিক্ষার্থীরা

- ক. প্রাথমিক বিদ্যালয়ে মাতৃভাষা পাঠদানের উদ্দেশ্য ব্যাখ্যা করতে পারবে
- খ. মাতৃভাষা শিখন-শেখানোর কলা-কৌশল প্রয়োগ করতে পারবে
- গ. প্রাথমিক স্তরে বাংলা ভাষার শিক্ষাক্রমের উদ্দেশ্য/প্রয়োজনীয়তা/ ভূমিকা বর্ণনা করতে পারবে
- ঘ. প্রাথমিক স্তরে বাংলা ভাষার শিক্ষাক্রম ও পাঠ্যসূচি পর্যালোচনা করতে পারবে

বিষয়বস্তু

- ক. প্রাথমিক বিদ্যালয়ে মাতৃভাষা পাঠদানের উদ্দেশ্য
- খ. প্রাথমিক বিদ্যালয়ে মাতৃভাষা শিখন-শেখানোর কলা-কৌশল ও দক্ষতা
- গ. প্রাথমিক স্তরের বর্তমান শিক্ষাক্রম পর্যালোচনা
- ঘ. প্রাথমিক স্তরে বাংলা ভাষার পাঠ্যসূচি পর্যালোচনা

ইউনিট ৩: প্রাথমিক স্তরে বাংলা ভাষা শিক্ষণ ও পাঠদান

8

শিখনফল

এই পাঠ শেষে শিক্ষার্থীরা

- ক. ভাষাকলার চারটি দক্ষতার (শোনা, বলা, পড়া ও লেখা): গুরুত্ব, বৈশিষ্ট্য, কৌশল ব্যাখ্যা করতে পারবে
- খ. শুদ্ধরূপে বাংলা ভাষা উচ্চারণ করতে পারবে
- গ. প্রাথমিক স্তরের বাংলা ভাষার বিভিন্ন শিখন-শেখানো পদ্ধতি প্রয়োগ করতে পারবে
- ঘ. শুদ্ধ বানানরীতি অনুযায়ী বাংলা ভাষা লিখতে পারবে

বিষয়বস্তু

- ভাষাকলার চারটি দক্ষতা (শোনা, বলা, পড়া ও লেখা): গুরুত্ব, বৈশিষ্ট্য, কৌশল
- উচ্চারণ অনুশীলন
- হাতের লেখা অনুশীলন
- বানান অনুশীলন
- প্রাথমিক স্তরের বাংলা ভাষার বিভিন্ন বিষয়বস্তু শিখন-শেখানোর পদ্ধতি ও কৌশল (শিক্ষক প্রতিটি পদ্ধতি প্রদর্শন করে দেখাবেন, শিক্ষার্থীরা সেই অনুসারে বিষয়ভিত্তিক বিভিন্ন পদ্ধতি ব্যবহার করে প্রদর্শন করবে।)

ইউনিট ৪: পাঠপরিকল্পনা, উপকরণ ও মূল্যায়ন

৫

শিখনফল

এই পাঠ শেষে শিক্ষার্থীরা

- ক. পাঠ-পরিকল্পনার গুরুত্ব ও প্রস্তুত প্রণালী বর্ণনা করতে পারবে
- খ. বাংলা বিষয় শিক্ষণে প্রয়োজনীয় উপকরণ চিহ্নিত করতে পারবে এবং বিভিন্ন শিক্ষণপকরণ তৈরি ও তা ব্যবহার করতে পারবে
- গ. শিক্ষার্থীদের অর্জিত জ্ঞান মূল্যায়নে যথাযথ পদ্ধতি প্রয়োগ করতে পারবে

বিষয়বস্তু

- পাঠ-পরিকল্পনা প্রস্তুতকরণ ও এর গুরুত্ব
- বাংলা বিষয় শিক্ষণে প্রয়োজনীয় উপকরণ ব্যবহারের উপযোগিতা
- বাংলা বিষয় শিক্ষণে প্রয়োজনীয় উপকরণ তৈরি ও প্রয়োগ পদ্ধতি
- অর্জিত জ্ঞান মূল্যায়ন পদ্ধতি

PART-B

Teaching English

Unit 1: English language

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the objectives of language learning
- b. explain the competencies of Primary English Language

Content

- Learning a language
- Objectives of language learning
- Primary English Curriculum
- Competencies of Primary English Language

Unit 2: Teaching Methodology

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe and use the system and the pattern of English language properly
- b. apply different types of teaching methodology in teaching English language

Content

- The system of English: Word order, Structural signals, agreement, intonation
- The Pattern of English: Sound patterns, word patterns, sentence patterns, word collocations
- Different types of teaching methodology: direct method, grammar-translation method, situational method, structural method, audio-lingual method, communicative method

Unit 3: Teaching Techniques

7

Learning Outcomes

At the end of this unit learners will be able to

- a. apply different teaching techniques of oral practice, teaching vocabulary, spelling, grammar and pronunciation
- b. explain the four basic language skills in teaching English language

Content

- Oral practice
- Teaching vocabulary
- Teaching spelling
- Teaching grammar
- Teaching pronunciation
- Teaching four basic language skills (listening, speaking, reading & writing)

Unit 4: Classroom Activities and Evaluation

7

Learning Outcomes

At the end of this unit learners will be able to

- a. identify and apply the appropriate classroom activities in the classroom
- b. explain the importance of lesson plan and teaching aids
- c. develop and use lesson plan and teaching aids
- d. prepare English questionnaire and assessment schedule to assess the pupils progress in English

Content

- Some important classroom activities: Question-Answer, Peers Learning, Group Discussion, Role Play, Brain Storming, MWTL, etc.
- Importance of teaching aids in English
- Preparation and use of teaching aids
- Lesson Plan: Demonstration by course teacher and students
- Preparation of tests in English
- Assessment of pupils' progress in English

6. Instructional Strategies

- a. Lecture/ Demonstration
- b. Group Discussion
- c. Article Reading
- d. Library work and students' participation in the class.

7. Assessment

- | | |
|--|------------|
| a. Two In-course Examinations | - 30 Marks |
| b. Semester Final Examination (MCQ+ Essay) | - 60 Marks |
| c. Assignments / Presentation | - 10 Marks |

8. Recommended Books, Journals and Reports

- Bright, J. A., & McGregor, G. P. (1970). *Teaching English as a Second Language: Theory and Techniques for the Secondary Stage*. London, England: Longman.
- Brumfit, C. (1980). *Problems and Principles in English Teaching*. New York, USA: Pergamon Press.
- Cameron, L. (2001). *Teaching Languages to Young Learners*. Cambridge, England: Cambridge University Press.
- NCTB (2011), *Primary Bangla & English Curriculum*. Dhaka: National Curriculum & Textbook Board.
- Spratt, M. (1994). *English for the Teacher: A Language Development Course*. Cambridge, England: Cambridge University Press.
- Ur, P. (1999). *A Course in Language Teaching: Practice and Theory*. Cambridge, England: Cambridge University Press.
- Wills, J. (1981). *Teaching English through English*. London, England: Longman.
- এ.এস.এম. মুজাম্মিল হক, সৈয়দা তাহমিনা, নুসরাত সুলতানা, নাসরিন জাকিয়া সুলতানা (২০১০), *শিক্ষানীতি ও শিখন পদ্ধতি* গাজীপুর: বাংলাদেশ উন্মুক্ত বিশ্ববিদ্যালয়।
- মুহাম্মদ নাজমুল হক, দিবা হোসেন ও শাহিনা আক্তার (২০১২), *শিশু ও শিক্ষা মনোবিজ্ঞান*, গাজীপুর: বাংলাদেশ উন্মুক্ত বিশ্ববিদ্যালয়।

1. Course Number: TC 132

Course Title: Teaching Mathematics in the Elementary Level

2. Credit Hours: 4

3. Course Description

This course intends to give the students a comprehensive background information techniques and practical skills need to teaching Elementary Mathematics in the Primary School of Bangladesh. It also deals with the strategies of teaching abstract concepts and ideas for developing logical thinking.

4. Course Objectives

The objectives are to help learners to

- a. understand the nature and scope of elementary school mathematics and reflect it in their teaching.
- b. translate the general objectives of teaching mathematics into precise instructional objectives of individual lesson.
- c. develop an understanding of learning processes in mathematics.
- d. develop an understanding of the different strategies and approaches to teaching of elementary school mathematics.
- e. teach a given mathematical content effectively by adopting appropriate teaching strategies to attain the objectives in mathematics at various cognitive level.
- f. construct appropriate test item(s) according to instructional objectives in mathematics at various cognitive level.
- g. identify type of students difficulties in learning mathematics and provide suitable remedial instruction.

5. Course Contents

Contact Hours

Unit 1: Introduction

4

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the importance of mathematics and History of Elementary Mathematics
- b. explain the place and values of Elementary Mathematics in school

Content

- History of Elementary Mathematics teaching (in Bangladesh)
- Number system
- Place of Elementary Mathematics in school Curriculum
- Values of Mathematics in everyday life

Unit 2: Mathematics Curriculum of Elementary Mathematics

4

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the contents in terms of number & counting, Geometry & measurement and Quantification
- b. formulate objectives of teaching elementary mathematics

Content

- Contents of Mathematics
- Bases for formulation of aims & objectives
- Concept of behavioral objectives
- Writing behavioral objectives

Unit 3: Teaching Aids

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the importance and need of teaching aids in teaching-learning
- b. develop and classify different types of teaching aids

Content

- Importance and need of teaching aids
- Development of teaching aids
- Principles for use of teaching aids
- Types of teaching aids
- ICT: Use and maintenance

Unit 4: Planning for Mathematics teaching

5

Learning Outcomes

At the end of this unit learners will be able to

- a. prepare lesson plans and use for effective teaching
- b. explain the feature and specimen of lesson plan

Content

- Introduction
- Unit planning
- Lesson planning
- Features of lesson plan
- Specimen lesson plan

Unit 5: Approaches to Teaching-learning Mathematics

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the different strategies and approaches to teaching of elementary mathematics
- b. explain content effectively by adopting appropriate teaching strategies to attain the objectives in mathematics at various cognitive level

Content

- Concept formation in mathematics, moves and strategies of teaching mathematical concepts
- Expository and guided-discovery strategies for teaching of generalizations in mathematics
- Strategies of teaching mathematics through child centered approach-heuristic methods, deductive and inductive method, Participatory method, multigame setting, joyful learning through play way method, development of computation and drawing skills

Unit 6: Problem Solving: Theory and Practice

4

Learning Outcomes

At the end of this unit learners will be able to

- a. enhance the logical power and skills of teaching elementary Mathematics in using appropriate strategies
- b. design mastery learning strategy for teaching product and process of mathematics based on different units in Arithmetic, Geometry and Mensuration
- c. enhance the skills through practicing oral work, written work, Drill work, Homework, assignment, group work and review

Content

- Problem solving theory: Joj poliar , Numen and Vygotsky
- Problem solving, stages in problem solving, techniques to improve problem solving skills
- Designing mastery learning strategy for teaching product and process of mathematics based on different units in Arithmetic, Geometry and Menstruation
- Instrumental and Relational technique
- Oral work, written work, Drill work, Homework, assignment, Self-study, Group work, Review and Supervised Study

Unit 7: Evaluation of Students' Learning in Mathematics

5

Learning Outcomes

At the end of this unit learners will be able to

- a. evaluate pupil progress in Elementary Mathematics
- b. construct and administer of diagnostic tests and using remedial instruction based on diagnosis

Content

- Role of evaluation in the teaching-learning process, evaluation techniques associated with pupils' achievement-observation, oral work, analysis of written work. Testing – types of tests – planning and construction of competency-based achievement tests
- Diagnosis and remedial instruction-role of task analysis in diagnosis. Diagnosing difficulties in learning concept and principles. Construction and administration of diagnostic tests and using remedial instruction based on diagnosis

Unit 8: Content and Process Enrichment in Elementary School Mathematics

8

Learning Outcomes

At the end of this unit learners will be able to

- a. deal following topics in an integrated way highlighting teaching-learning processes

Content

- Sets to numbers and numerals, concept of number, cardinality and ordinality of numbers, sets of number operations and their properties associated with whole numbers, integers and rational numbers
- Informal geometry: basic concepts in informal geometry-point, line curve, line segment, ray, angle etc. Concept of perpendicularity and parallelism, circle-radius, diameter, arc, segment and chord, polygons-classification of polygons
- Measurement of concepts and skills-liner measurement, area, volume and weight, metric system, activities for development of skills in measurement

6. Instructional Strategies

- Lecture followed by group discussion
- Question-answer
- Guided Discussion
- Skill practices
- Pair/group work

7. Assessment

- Two In-course Examinations - 30 Marks
- Semester Final Examination (MCQ+ Essay) - 60 Marks
- Assignment /Presentation - 10 Marks

8. Recommended Books, Journals and Reports

- Ashlock, R.B. and Herman Jr. W. L. (1970). *Current Research in Elementary School Mathematics*. New York: Macmillan.
- Baur, G. R. and George, L.U. (1976). *Helping Children Learn Mathematics – A Competency Based Laboratory Approach*, California: Cummings Publishing Co.
- Begum Kamrunnessa (1977), *Prathomic Bidyalaye Ganit Shikka*, Dhaka: Banlga Academy.
- Halim, M.A, *Origin and Chronological , Development of Number*, Dhaka University: Bangla Journal, Vol. 75
- Heimer, R. T. and Trueblood, C.R. (1977). *Strategies for Teaching Children Mathematics*. Reading Massachusetts: Addison Wesley Publishing Co.
- Kidd, Kenneth, P. et. al. (1970). *The Laboratory Approach to Mathematics*. Chicago: Science Research Associates.
- NCERT (1991, 1995). *Minimum Levels of Learning at Primary Stage*. NCERT, New Delhi.
- Resinck, L.B. and W. W. Ford, (1980). *The Psychology of Mathematics for Instruction*. New Jersey: Lawrence Erlbaum Associates.
- Skemp, R. R. (1971). *The Psychology of Learning Mathematics*. Harmondsworth: Penguin Books.
- Ward, M. and Hardgrove, C. E. (1965). *Modern Elementary Mathematics Reading*, Massachusetts: Addison Wesley Publishing Co. Inc.
- প্রাথমিক ও গণশিক্ষা মন্ত্রণালয় (২০১৮), *প্রাথমিক গণিত শিক্ষা (বিষয়জ্ঞান ও শিক্ষাবিজ্ঞান)*, সহযোগিতায়: আইইআর, ঢাকা বিশ্ববিদ্যালয় ও নেপ।

1. Course Number: TC 133

Course Title: Teaching Environmental Studies in the Elementary Level

2. Credit Hours: 4

3. Course Description

This course intends to offer the learners comprehensive background information and techniques needed in teaching Environmental Studies in the Primary School of Bangladesh. It is concerned with detailed discussion of teaching Environmental Studies at the Elementary Level.

4. Course Objectives

The objectives are to help learners to

- a. make aware to the importance of Environmental Studies.
- b. build acquainted with the objectives of Environmental Studies in the Primary School.
- c. help to acquire the skills of teaching Environmental Studies in the Primary School using appropriate strategies.
- d. make interested in practical work in the field of Environment Studies.
- e. create the students acquainted with the planning and organization in teaching Environmental Studies.
- f. assist to prepare lesson plan and instructional materials.
- g. facilitate how to evaluate pupil progress in Environmental Studies.

5. Course Contents

Contact Hours

Unit 1: Meaning and Concepts of Environmental Studies

6

Learning Outcomes

At the end of this unit learners will be able to

- a. classify different meaning and concept of environmental studies
- b. identify the rational for introducing environmental studies in the primary school

Content

- Definition of Environment
- Environmental Education
- Environmental Studies (Science & Social Science)
- Rationale for introducing Environmental Studies in the Elementary School

Unit 2: Aims and Objectives of Environmental Studies

6

Learning Outcomes

At the end of this unit learners will be able to

- a. acquainted with the aims and objectives of teaching environmental studies in the elementary school
- b. identify the needs and importance of incorporating Environmental Studies in the primary curriculum

Content

- Aims and objectives of teaching Environmental Studies in the Elementary School
- Needs and importance of Environment Studies
- Orientation with the curriculum of Environmental Studies for Bangladesh

Unit 3: Basic Concepts and Contents of Environmental Studies (Science)

9

Learning Outcomes

At the end of this unit learners will be able to

- a. familiar with the content related knowledge about physical and biological science related topics of the Elementary level
- b. understand the importance of science and technology

Content

- Man and his environment (Physical)
- Soil, Air, Water, Climate
- Plant life: Classification, life cycle, flower, fruits and vegetables, environment and plants
- Animal life: Classification, life-cycle, insects environment and animal
- Food, nutrition and population
- Matter, atoms and molecules, heat, sound and electricity
- Energy and natural resources
- Health, hygiene and environment
- Earth and the universe
- Climate change, global warming and deforestation
- Importance of science and technology

Unit 4: Basic Concepts and Content of Environmental Studies (Social) in the Elementary School

9

Learning Outcomes

At the end of this unit learners will be able to

- a. familiar with the content knowledge of social science related topics of the elementary level
- b. understand the importance of democratic attitudes

Content

- Man and his environment (Social)
- Geographical- condition of Bangladesh
- Bangladesh: agriculture and industries
- Religion, cultures and traditions of Bangladesh
- Social process, family and neighborhood
- Society and Communities
- Democratic attitudes

Unit 5: Teaching Learning Strategies for Environmental Studies

10

Learning Outcomes

At the end of this unit learners will be able to

- a. acquainted with preparing and using of relevant teaching learning materials
- b. exhibit the lesson using modern methods and techniques of teaching

Content

- Demonstration of lesson by course teacher followed by one or two students.
- Methods and techniques of teaching Environmental Studies in the Primary School- Discussion, Project, Laboratory, Demonstration, MWTL, Role Play, Heuristic Method etc.
- Importance of teaching aids in Environment Studies

- Preparation unit plan and lesson plan
- Preparation and use of audio-visual aids and educational technology for teaching Environment Studies
- Assessment of pupils' progress in Environment Studies

6. Instructional Strategies

- Lecture
- Question-answer
- Guided Discussion/Group Discussion
- Review of books

7. Assessment

- Two In-course Examinations - 30 Marks
- Semester Final Examination (MCQ+ Essay) - 60 Marks
- Assignment / Presentation - 10 Marks

8. Recommended Books, Journals and Reports

Carian, A., Sund, R.N. (1989), *Teaching Science Through Discovery*, Columbus, Ohio: Charles E. Merrill Publishing Company.

NCTB (2018) Textbook for Environmental Studies (Primary Science & Bangladesh and Global Studies) from Grade Three to Grade Five.

Yadav. M.S. (1992), *Teaching of Science*, New Delhi: Anual Publications.

বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি প্রণয়ন কমিটি রিপোর্ট, প্রথম খণ্ড. প্রাথমিক স্তর (2018), ঢাকা: বাংলাদেশ শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।

বহুমুখী শিখন পদ্ধতি: ধারণা ও প্রয়োগ কৌশল (২০১৮), ঢাকা: বাংলাদেশ শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।

আবশ্যিকীয় শিখনক্রম (প্রাথমিক শিক্ষা) (১৯৪৫), ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।

শ্রী কমলকৃষ্ণ দে (১৯৮৯), *ভৌত বিজ্ঞানে শিক্ষক-শিক্ষার্থী*, কলিকাতা: সোমা বুক এজেন্সী।

সুব্রত কুমার সাহা (২০০৭), *পরিবেশ বিজ্ঞান*, ঢাকা: বাংলা একাডেমী।

প্রাথমিক ও গণশিক্ষা মন্ত্রণালয় (২০১৮), *প্রাথমিক বিজ্ঞান ও বাংলাদেশ ও বিশ্বপরিচয় (বিষয়জ্ঞান ও শিক্ষাবিজ্ঞান)*, ঢাকা: আইইআর, ঢাকা বিশ্ববিদ্যালয় ও নেপ।

১. Course Number: TC 134

Course Title: বাংলা শিক্ষণ (Teaching Bangla)

২. ক্রেডিট ঘণ্টা: ৪

৩. কোর্সের বর্ণনা

শিক্ষা (সম্মান) শ্রেণির ভাষাশিক্ষা বিভাগের প্রায়োগিক একটি বিষয়। এই কোর্সের উদ্দেশ্য শিক্ষার্থীদের বাংলা ভাষা শিক্ষাক্রম, বাংলা ভাষা শিখন-শিক্ষণ পদ্ধতি, উপকরণের ব্যবহার, পাঠ-পরিকল্পনা প্রণয়ন ও মূল্যায়ন কৌশল সম্পর্কে পরিচিতকরণ ও প্রয়োগে সহায়তা করা।

৪. কোর্সের উদ্দেশ্য

শিক্ষার্থীদের

- ক. বাংলা ভাষা শিক্ষাক্রম সম্পর্কে ধারণা প্রদান ও সাহিত্য শিক্ষণ পদ্ধতি ও কলাকৌশল সম্পর্কে অবহিত করা।
- খ. বাংলা ভাষা ও সাহিত্য শিখন-শিক্ষণে শিক্ষাপ্রদান ও পাঠ পরিকল্পনা প্রণয়ন ও প্রয়োগে সহায়তা করা।
- গ. বাংলা ভাষা ও সাহিত্য শিখন-শিক্ষণে মূল্যায়ন পদ্ধতির অনুশীলন ও প্রয়োগের দক্ষতা অর্জনে সহায়তা করা।

৫. কোর্সের বিষয়সমূহ

শিক্ষণ ঘণ্টা

ইউনিট ১: বাংলা ভাষা শিক্ষাক্রম

৪

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা শিক্ষাক্রমের গুরুত্ব ব্যাখ্যা করতে পারবে
- খ. মাধ্যমিক স্তরের শিক্ষাক্রম পর্যালোচনা করতে পারবে
- গ. মাধ্যমিক স্তরের বাংলা ভাষা ও সাহিত্য পাঠ্যসূচি পর্যালোচনা করতে পারবে

বিষয়বস্তু

- বাংলা ভাষা শিক্ষাক্রম
- মাধ্যমিক স্তরের বাংলা শিক্ষাক্রম
- মাধ্যমিক স্তরের বাংলা ভাষার পাঠ্যসূচি

ইউনিট ২: মাতৃভাষা শিখন-শেখানো পদ্ধতি ও কৌশল

১০

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. মাতৃভাষা শিখন-শিক্ষণ পদ্ধতি ও কৌশল ব্যাখ্যা, বিশ্লেষণ ও প্রয়োগ করতে পারবে

বিষয়বস্তু

- মাতৃভাষা শিখন-শিক্ষণ পদ্ধতি ও কৌশল:
 - কমিউনিকেটিভ এ্যাপ্রোচ
 - বর্ণানুক্রমিক পদ্ধতি
 - বাক্যানুক্রমিক পদ্ধতি
 - আরোহী ও অবরোহী পদ্ধতি

ইউনিট ৩: মাধ্যমিক পর্যায়ে সাহিত্য পাঠদান

১১

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. গদ্য-সাহিত্য পাঠদানের পদ্ধতি ও কৌশল বিশ্লেষণ করতে পারবে
- খ. কবিতা পাঠদানের পদ্ধতি ও কৌশল বিশ্লেষণ অনুযায়ী প্রয়োগ করতে পারবে
- গ. ব্যাকরণ পাঠদানের কার্যকর পদ্ধতি ও কৌশল নির্বাচন ও প্রয়োগ করতে পারবে
- ঘ. রচনা ও নির্মিত তৈরির কার্যকর পদ্ধতি ও কৌশল নির্বাচন ও প্রয়োগ করতে পারবে

বিষয়বস্তু

- গদ্য: পাঠ, ব্যাখ্যা, বিশ্লেষণ
- ছড়া/কবিতা: আবৃত্তি ও ভাবার্থ
- ব্যাকরণ পাঠ সংশ্লিষ্ট পদ্ধতি
- রচনা ও নির্মিতি সৃষ্টির প্রক্রিয়া

ইউনিট ৪: ভাষা ও সাহিত্য শিক্ষাদানে পাঠ-পরিকল্পনা

৩

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা ও সাহিত্যে পাঠ-পরিকল্পনা প্রণয়নের ধাপসমূহ নির্ণয় করতে পারবে
- খ. পাঠ-পরিকল্পনার প্রকারভেদ নির্ণয় করতে পারবে
- গ. আদর্শ পাঠ-পরিকল্পনা প্রণয়ন করতে পারবে

বিষয়বস্তু

- পাঠ-পরিকল্পনা: প্রকারভেদ, ধাপসমূহ, প্রণয়ন পদ্ধতি ও অনুশীলন

ইউনিট ৫: ভাষা ও সাহিত্য শিক্ষাদানে শিক্ষোপকরণ

২

শিখনফল

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. শিক্ষোপকরণের ধারণা ও গুরুত্ব বর্ণনা করতে পারবে
- খ. শিক্ষোপকরণের প্রকারভেদ নির্ণয় করতে পারবে
- গ. উপযুক্ত শিক্ষোপকরণ তৈরি, ব্যবহার ও সংরক্ষণ করতে পারবে

বিষয়বস্তু

- শিক্ষোপকরণ: বাংলা শিখন-শিক্ষণে শিক্ষোপকরণের ভূমিকা, প্রকারভেদ, তৈরি ও সংরক্ষণ

ইউনিট ৬: ভাষা ও সাহিত্যানুশীলন কার্যাবলী

৫

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা ও সাহিত্যানুশীলন কার্যাবলী চিহ্নিত করতে পারবে
- খ. ভাষা ও সাহিত্যানুশীলন কার্যাবলী প্রয়োগ করতে পারবে
- গ. ভাষা ও সাহিত্যানুশীলন কার্যক্রম বাস্তবায়নের সীমাবদ্ধতা/সীমাবদ্ধতাসমূহ শনাক্ত করতে পারবে
- ঘ. ভাষা ও সাহিত্যানুশীলন কার্যাবলী বাস্তবায়নের সীমাবদ্ধতা/সীমাবদ্ধতাসমূহ মোকাবিলার কৌশল নির্ধারণ করে প্রয়োগ করতে পারবে

বিষয়বস্তু

- ভাষা ও সাহিত্যানুশীলন কার্যাবলীর ধারণা ও গুরুত্ব
- ভাষা ও সাহিত্যানুশীলন কার্যাবলীর প্রকারভেদ, অনুশীলন ও প্রয়োগ কৌশল
- ভাষা ও সাহিত্যানুশীলন কার্যাবলীর বাস্তবায়নের সীমাবদ্ধতা/সীমাবদ্ধতাসমূহ
- ভাষা ও সাহিত্যানুশীলন কার্যাবলীর বাস্তবায়নের সীমাবদ্ধতা/সীমাবদ্ধতাসমূহ মোকাবিলার কৌশল নির্ধারণ ও প্রয়োগ

ইউনিট ৭: ভাষা ও সাহিত্য শিক্ষায় পরিমাপ ও মূল্যায়ন

৫

এই ইউনিট শেষে শিক্ষার্থীরা

- ক. ভাষা ও সাহিত্য শিখন-শিক্ষণে পরিমাপ ও মূল্যায়নের ধারণা ও গুরুত্ব ব্যাখ্যা করতে পারবে
- খ. ভাষা ও সাহিত্য শিখন-শিক্ষণে পরিমাপ ও মূল্যায়নের বিভিন্ন পদ্ধতির প্রয়োগ করতে পারবে

বিষয়বস্তু

- ভাষাশিক্ষায় পরিমাপ, মূল্যায়নের ধারণা ও গুরুত্ব
- শ্রেণিবিভাগ, সুবিধা ও অসুবিধা
- সুঅভীক্ষার বৈশিষ্ট্যসমূহ
- অভীক্ষা গঠনের ধাপসমূহ, অভীক্ষার ফোর ব্যাখ্যাকরণ
- অভীক্ষা প্রণয়নের প্রয়োগ ও চর্চা: শিক্ষকের ভূমিকা

৬. শিখন শেখানো কৌশল

- ক. বক্তৃতা
- খ. উপস্থাপনা
- গ. অংশগ্রহণ
- ঘ. অনুশীলন

৭. এ্যাসাইনমেন্ট

- ক. কোর্স সংশ্লিষ্ট বিষয়ে প্রতিবেদন তৈরি

৮. মূল্যায়ন

- ক. ইনকোর্স পরীক্ষা
- খ. এ্যাসাইনমেন্ট
- গ. উপস্থাপনা
- ঘ. চূড়ান্ত পরীক্ষা

৯. সহায়ক গ্রন্থসমূহ

- আ. ন. ম. বজলুর রশীদ (১৯৭৪), *স্কুলে মাতৃভাষা-শিক্ষণ*, ঢাকা: বাংলা একাডেমি।
- জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি প্রণয়ন কমিটি রিপোর্ট (১৯৭৭), *নিম্ন মাধ্যমিক স্তর (ষষ্ঠ থেকে অষ্টম শ্রেণি) (দ্বিতীয় খণ্ড)*, ঢাকা: এনসিটিবি।
- জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি প্রণয়ন কমিটি রিপোর্ট (১৯৯৫), *নিম্ন মাধ্যমিক স্তর (ষষ্ঠ থেকে অষ্টম শ্রেণি) (প্রথম খণ্ড)*, ঢাকা: এনসিটিবি।
- মঞ্জুরী চৌধুরী (১৯৮২), *বাংলা শিক্ষণ-পদ্ধতি*, ঢাকা: বাংলা একাডেমি।
- মনসুর মুসা (২০১২), *শিক্ষাভাষা ও ভাষা-শিক্ষা*, ঢাকা: নবযুগ প্রকাশনী।
- শ্রীমতি কল্যাণী কার্ণেকার (১৯৬৩), *বাংলা-ভাষার শিক্ষা পদ্ধতি*, কলিকাতা: মিত্র বিহার প্রাইভেট লিমিটেড।
- শ্যামলী আকবর ও অন্যান্য (২০০৯), *শিক্ষায় যোগাযোগ: তত্ত্ব ও প্রয়োগ*, ঢাকা: এডুকেশন ওয়েভ।
- শামসুল হক (২০০৫), *বাকশিল্প*, ঢাকা: নবযুগ প্রকাশনী।
- সত্য গোপাল মিশ্র (১৯৯৪), *বাঙলা পড়ানোর রীতি ও পদ্ধতি*, কলিকাতা: সোমা বুক এজেন্সী।
- সুভাষ ভট্টাচার্য (২০০০), *বাঙালির ভাষা*, কলিকাতা: আনন্দ পাবলিশার্স প্রাইভেট লিমিটেড।

1. Course Number: TC 135

Course Title: Teaching English

2. Credit Hours: 4

3. Course Description

This is a content-cum-method/practicum (English Language Teaching-ELT) course where the learners are required to undergo a full length of training in micro-simulation and practical teaching. The course introduces teaching of basic language skills and a thorough overview of EFL methodology from the pre-nineteenth century up to the present time. The course also includes training for student-teachers in various roles as an observer, supervisor, and coordinator. In addition to these, the course introduces basic knowledge in EFL Testing and Evaluation.

4. Course Objectives

The objectives are to help learners to

- a. define various language skills and use them in teaching English as a foreign language (EFL).
- b. distinguish between receptive and productive skills and explain the role of the mother tongue in teaching (EFL).
- c. apply EFL methods and language skills in practical teaching.
- d. explain the main features of EFL at the secondary level.
- e. make valid and reliable EFL tests for the secondary level.
- f. perform the role of observers, supervisors, and coordinators in practice teaching.

5. Course Contents

Contact Hours

Unit 1: Language Skills

4

Learning Outcomes

At the end of this unit learners will be able to

- a. define all the basic skills
- b. teach the skills in a real classroom

Content

- The teaching of basic language skills
- Listening as a process of communication
- Teaching vocabulary-speaking competence
- Teaching reading techniques
- Teaching writing as performance

Unit 2: ELT Methods and Approaches

8

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the history of EFL methodology
- b. use the methods in their teaching
- c. integrate the methods as required while teaching

Content

- A brief history of the development of EFL methodology
- Principal methods suitable to our classrooms
- The grammar-translation method (GTM)
- The direct method

- The structure method
- Audio lingual method
- Communicative language teaching (CLT)
- Total physical response (TPR)
- Community language learning method (CLLM)
- The natural approach
- Computer-assisted language learning (CALL)
- Post-method era approaches
- Suggestopedia method
- Eclecticism in EFL teaching
- Integration-innovating in teaching
- Task-based approach

Unit 3: Lesson Plan

6

Learning Outcomes

At the end of this unit learners will be able to

- explain the significance of the lesson plan
- prepare lesson plan
- prepare/ collect appropriate teaching aids
- use appropriate teaching aids while teaching

Content

- Significance of lesson plan
- Format of a lesson plan
- Planning-daily, monthly, half-yearly, yearly
- Unit plan
- Teaching aids: significance and use
- Development of lesson Plan

Unit 4: English Curriculum VI-XII

4

Learning Outcomes

At the end of this unit learners will be able to

- describe the objectives of teaching English at the secondary level
- explain the types of materials used at this level
- use appropriate assessment in the classroom

Content

- Introduction to English curriculum of secondary level
- Objectives of teaching English at the secondary level
- Types of teaching materials used at this level
- Evaluation system

Unit 5: Methods and Skills

10

Learning Outcomes

At the end of this unit learners will be able to

- use appropriate teaching method in classroom teaching
- participate in practice teaching
- present demonstration lesson using different methods

Content

- Integration of methods and content
- Practice teaching
- Demonstration lesson following different methods and approaches
(Note: Application: Textbooks of Secondary Level)

Unit 6: Testing and Evaluation

8

At the end of this unit learners will be able to

- a. explain the difference between testing and evaluation
- b. explain different types of tests
- c. construct test items
- d. interpret test scores and norms

Content

- The distinction between testing and evaluation
- Kinds of test and testing
- MCQs, matching, true-false, cloze test, short essay, information gap, simulation
- Long essay, developing a paragraph
- Test specification
- Stages of test construction
- Testing four basic language skills
- Interpreting test Scores and Norms
(Note: Application: Textbooks of Secondary Level)

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Presentation
- d. Project Works
- e. Assignments
- f. Model lesson presentation

7. Assessment

Marks (%)

- a. One in-course examination 10
- b. Students' analytical and reflective works 40
(Combination of at least two tasks (i) assignment, (ii) project, (iii) term paper, (iv) presentation, (v) review paper, (vi) field work)
- c. Course final examination (MCQ + Essay Type) 10+40= 50

8. Recommended Books, Journals and Reports

- Begum, M, Roshid, M. M, & Banu, S. (2005). *Developing English language skills*. Media Wave.
- Celce-Murcia, M. (2001). Language teaching approaches an overview. *Teaching English as second or foreign language*, 2(1), 3-10.
- Cumming, A. (2009). Language assessment in education: Tests, curricula, and teaching. *Annual review of applied linguistics*, 29, 90.
- Groundland, N. E. & Linn. R L. (1990). *Measurement and evaluation in teaching* (6th edition). Macmillan Publishing Company.
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1. Course Number: TC 136

Course Title: Teaching Social Studies: One

2. Credit Hours: 4

3 Course Description

The Course provides a brief description of the structure of Social Studies as a discipline, its nature and scope and the contribution that it has made to human knowledge. The course deals with specific components of knowledge and behaviour patterns to be developed among the learners as well as to emphasize the role of the teacher in the teaching-learning process of this subject. Focus is also given on the role of Social Studies in maintaining social harmony among different communities and fostering national integrity.

4. Course Objectives

The objectives are to help learners to

- a. acquire knowledge and understanding about the structure, nature scope, importance and contribution of Social Studies as a discipline.
- b. make them understand the objectives and purposes of teaching Social Studies as a subject.
- c. acquaint them with the status of Social Studies in the curriculum of primary, secondary and higher education of Bangladesh.
- d. understand the special nature of classroom environment and roles of the teacher and the learners in classroom teaching.
- e. realize the comprehensive role of Social Studies in maintaining social harmony among different communities and fostering national integrity.

5. Course Contents

Contact Hours

Unit 1: Social Studies as a Discipline

7

Learning Outcomes

At the end of this unit learners will be able to

- a. explain how Social Studies is considered as a discipline
- b. explain the meaning, concept, scope, structure and importance of Social Studies
- c. determine the content of Social Studies

Content

- Social Studies as a discipline
- Meaning, concept structure and content
- Scope and importance of Social Studies

Unit 2: Objectives of Teaching Social Studies

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the Taxonomy of educational objectives
- b. write instructional and behavioral objectives of Social Studies according to different domains
- c. practice developing competencies for Social Studies content
- d. practice developing learning outcomes for Social Studies

Content

- Taxonomy of Educational Objectives related to Social Studies
- Behavioral objectives of teaching Social Studies
- Instructional objectives of teaching Social Studies
- Competencies for Social Studies
- Relevant and learning outcomes

Unit 3: Status of Social Studies in the Curricula at Different Levels

10

Learning Outcomes

At the end of this unit learners will be able to

- a. identify and discuss the relevant objectives related to teaching Social Studies in the National Education Policy 2010
- b. analyse aims and objectives in the Bangladesh and Global Studies curricula at primary and secondary level education
- c. discuss the content in the Bangladesh and Global Studies curricula
- d. analyse and review critically the teaching-learning strategies and activities in the Bangladesh and Global Studies Curricula

Content

- Objectives in the National Education Policy 2010 relevant to Social Studies
- Aims and purposes of Bangladesh and Global Studies curriculum
- Syllabus and contents
- Review of the Bangladesh and Global Studies curriculum

Unit 4: Teaching Social Studies for Promoting Social Harmony and National Integration

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the meaning of social harmony and national integration
- b. analyse the basic issues of social harmony and national integrity
- c. explain the role of the Social Studies in developing social harmony and national integration among students
- d. practice social harmony and national integration

Content

- Connotation and meaning of social Harmony and National Integration
- Basic issues of Social Harmony and National Integrity
- Social Harmony and National Integrity and role of Social Studies

Unit 5: Social Studies Teacher

6

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss significant characteristics and competencies of Social Studies teachers
- b. analyse the ways of developing skills and efficiencies of Social Studies teachers
- c. explain how do the Social Studies teachers work as change agents

Content

- Characteristics and competencies of Social Studies teachers
- Skills and efficiencies of teachers
- Social Studies teacher as change agent

6. Instructional Strategies

- Lecture
- Discussion
- Question-answer
- Class presentations
- Observation
- Debate, Presentation
- Field-Trips, etc.

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Course Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Aggarwal, J. D. (1931). *Teaching of Social Science: A Practical Approach* (2nd ed.). Vikas Publishers.
- Bloom, B. S. (1956). *Taxonomy of educational objectives*. David McKay Company. Inc.
- Chiodo, J. J., & Byford, J. (2004). Do they really dislike social studies? A study of middle school and high school students. *Journal of social studies Research*, 28(1), 16.
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- High, J. (1962). *Teaching Secondary School Social Studies*. John Wiley & Sons, Inc.
- Hunt, M. P. & Metcalf, L. E. (1955). *Teaching Social Studies*. Prentice-Hall.
- Jarolimek, J. (1981). The social studies: An overview. *Teachers College Record*, 82(6), 3-18.
- Kissock, C. (1981). *Curriculum Planning for Social Studies Teaching*. John Wiley and Sons, Inc.
- Kochar, S. K. (1983). *Teaching of Social Studies*. Sterling Publishers Private Limited.
- Kuper, A. (2004). *The social science encyclopedia*. Routledge.
- Levstik, L.S., & Tyson, C.A. (Eds.) (2008). *Handbook of Research in social studies education*. Routledge.
- Michaels, J. V. (1956). *Social Studies for children in a Democracy*. Prentice-Hall, Inc.
- Soares, L. B., & Wood, K. (2010). A critical literacy perspective for teaching and learning social studies. *The Reading Teacher*, 63(6), 486-494.
- আব্দুল মালেক ও লুৎফর রহমান, (২০০০), সামাজিক বিজ্ঞান শিক্ষণ, ঢাকা: মাধ্যমিক শিক্ষা উন্নয়ন প্রকল্প, শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (১৯৯৭), বাংলাদেশ জাতীয় শিক্ষানীতি প্রণয়ন কমিটি রিপোর্ট, ঢাকা: গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড (১৯৭৭), বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি কমিটি রিপোর্ট, ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।
- জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড (১৯৯৫), বাংলাদেশ জাতীয় শিক্ষাক্রম ও পাঠ্যসূচি কমিটি রিপোর্ট, ঢাকা: জাতীয় শিক্ষাক্রম ও পাঠ্যপুস্তক বোর্ড।
- মো: ইলিয়াস আলী (১৯৯৯), যুগে যুগে শিক্ষা কমিশন ও শিক্ষার উত্তরণ, ঢাকা: জাগরনী প্রকাশনী।
- মোহাম্মদ আলী জিন্নাহ (২০০৩), বাংলাদেশে নিম্ন মাধ্যমিক শিক্ষান্তরে (ষষ্ঠ-অষ্টম শ্রেণী) সামাজিক বিজ্ঞান শিক্ষাক্রমের গতিধারা নিরূপণ, অপ্রকাশিত এম.এড থিসিস, শিক্ষা ও গবেষণা ইনস্টিটিউট, ঢাকা বিশ্ববিদ্যালয়, ঢাকা।
- রনজিৎ ঘোষ (১৯৮৬), শিক্ষাদর্শ পদ্ধতি ও সমস্যার ইতিহাস, কলিকাতা: সোমা বুক এজেন্সী।
- শ্রী গৌরদাস হালদার, (১৯৮৬), শিক্ষণ প্রসঙ্গে শিক্ষার ইতিহাস, কলিকাতা: ব্যানার্জী পাবলিশার্স।
- শরিফা খাতুন (১৯৭৫), মাধ্যমিক বিদ্যালয়ে সামাজিক বিজ্ঞান শিক্ষণ, ঢাকা: বাংলা একাডেমী।
- শিক্ষা মন্ত্রণালয় (২০১০), জাতীয় শিক্ষানীতি-২০১০, ঢাকা: শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।

1. Course Number: TC 137

Course Title: Teaching Social Studies: Two

2. Credit Hours: 4

3 Course Description

The Course provides basic instruction for effective teaching of the Social Studies at different levels Education in Bangladesh. However, the main focus of the course is to facilitate the prospective learners to learn methods, techniques, evaluation techniques and practice them in teaching Social Studies especially applying effective PCK/TPCK in teaching Social Studies.

4. Course Objectives

The objectives are to help learners to

- a. learn about the special nature of classroom environment and the role of the Social Studies teacher and students.
- b. Acquaint them with different methods and techniques used in teaching Social Studies.
- c. acquaint them with materials and aids used in teaching and learning of Social Studies.
- d. understand the importance of these materials and aids in teaching and learning Social Studies.
- e. exercise the methods, techniques and skills of teaching Social Studies effectively in the classroom especially applying PCK/TPCK in classroom teaching.
- f. develop lesson plans.

5. Course Contents

Contact Hours

Unit 1: Classroom Environment in teaching of Social Studies

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the meaning, importance, principles and components of classroom organization for teaching Social Studies
- b. explain the meaning and importance of classroom environment and role of Social Studies teacher and students to maintain environment and norms in Social Studies classroom
- c. discuss and practice the process of social learning, communicative and collaborative learning through interactions

Content

- Management of Social Studies classroom
- Classroom environment and the roles of Social Studies teacher and learners
- The process of social learning, human relationship, communication and cooperation with others and learning through interactions

Unit 2: Methods and Techniques in Teaching Social Studies

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the importance of applying appropriate methods and techniques in teaching Social Studies
- b. acquaint them with applying selected active learning methods and techniques in teaching Social Studies

Content

- Importance of applying appropriate methods and techniques
 - i. Some Important methods: (Demonstration, Discussion and Practices in the classroom)
 - Planned Lecture
 - Discussion methods
 - Problem-solving methods
 - Project methods, Field Trip, Dramatization, Role play, etc
 - ii. Some Important Techniques: (Demonstration, Discussion and Practices in the classroom)
 - Question-answer
 - Observation
 - Debate
 - Role-playing
 - Map-reading
 - Field-trip

Unit 3: Source Materials

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the meaning and importance of source materials for teaching Social Studies
- b. develop in-depth knowledge about some selected source materials and their use in teaching Social Studies effectively

Content

- Source materials: Their usefulness in teaching Social Studies
- Some source materials
 - i. Textbook
 - ii. Teacher's Guide
 - iii. Reference materials
 - iv. District gazetteers
 - v. Historical places
 - vi. Museum
 - vii. Utilization of local community resources

Unit 4: Teaching Aids

4

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the importance of teaching aids in teaching and learning Social Studies
- b. identify the types of teaching-learning aids for Social Studies
- c. discuss and practice the strategies for collecting, preparing and preserving teaching aids
- d. explain the role of Social Studies teacher in preparing indigenous/low cost teaching aids
- e. analyze the Social Studies teacher's role in using teaching aids in classroom teaching

Content

- Teaching aids and their importance
- Types of teaching-learning aids
- Collection, preparation and preservation of teaching aids
- Teacher's roles in preparing indigenous/low cost teaching aids
- Teacher's role in using teaching aids in teaching-learning process of the Social Studies

Unit 5: Evaluation in Social Studies

4

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss nature and purposes of evaluating students' learning achievements
- b. identify and discuss evaluation techniques in teaching-learning process of Social Studies
- c. discuss different types of achievement tests and preparing those for teaching Social Studies

Content

- Nature and purpose of achievement tests
- Evaluation techniques
- Preparation of achievement tests for teaching Social Studies

Unit 6: Lesson Planning

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the definition, purposes and types of lesson plan
- b. prepare a lesson plan for teaching Social Studies
- c. explain the meaning, importance and steps of microteaching and simulation for teaching the Social Studies
- d. prepare and modify lessons plan through the practices of microteaching and simulation

Content

- Definition, purpose and types of lesson plan
- Preparing a lesson plan for Social Studies
- Practice through micro teaching and simulation

Unit 7: Demonstration Lessons

6

Learning Outcomes

At the end of this unit learners will be able to

- a. develop teaching knowledge and skills observing demonstration teaching practices of Social Studies teachers
- b. share views among students and teacher using specific content

Content

One lesson from each of the following subjects will be demonstrated by the course teacher and students

- History
- Geography
- Economics
- Sociology
- Political Science

6. Instructional Strategies

- a. Lecture
- b. Project
- c. Demonstration
- d. Problem-solving and other methods-discussion

- e. Question-answer
- f. Observation
- g. Role playing
- h. Debate, Presentation
- i. Field-Trips
- j. Class presentation. etc.

7. Assessment

- | | |
|-------------------------------|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Semester Final Examination | 20 + 40 = 60 |
| c. Assignment | 10 |

8. Recommended Books, Journals and Reports

- Aggarwal, J. D. (1931). *Teaching of Social Science: A Practical Approach* (2nd ed.). Vikas Publishers.
- Bloom, B. S. (1956). *Taxonomy of educational objectives*. David McKay Company. Inc.
- Bolinger, K., & Warren, W. J. (2007). "Methods Practiced in Social Studies Instruction: A Review of Public School Teachers' Strategies". *International Journal of Social Education*, 22(1), 68-84.
- Boon, R. T., Fore III, C., Blankenship, T., & Chalk, J. (2007). Technology-based practices in social studies instruction for students with high-incidence disabilities: A review of the literature. *Journal of Special Education Technology*, 22(4), 41-56.
- Brookhart, S. M., & Durkin, D. T. (2003). Classroom assessment, student motivation, and achievement in high school social studies classes. *Applied Measurement in Education*, 16(1), 27-54.
- Brooks, R., Aris, M., & Perry, I. (2014). *Effective Teaching of History*. Routledge.
- Heafner, T. (2004). Using technology to motivate students to learn social studies. *Contemporary Issues in Technology and Teacher Education*, 4(1), 42-53.
- High, J. (1962). *Teaching Secondary School Social Studies*. John Wiley & Sons, Inc.
- Hunt, M. P. & Metcalf, L. E. (1955). *Teaching Social Studies*. Prentice-Hall.
- Iksan, Z. H., Nor, S. N. A. M., Mahmud, S. N., & Zakaria, E. (2014). Applying the principle of "Lesson study" in teaching science. *Asian Social Science*, 10(4), 108-113.
- Iryasman, I., & Khairani, K. (2020). Improving Teacher's Competence in Developing Lesson Plan Oriented High Order Thinking Through Mentoring on Social Science Subject in SMP Negeri 7 Padang. *International Journal of Educational Dynamics*, 2(2), 48-56.
- Islam, M. K. (2020). Voice and participation of 'student cabinet' in school activities through the development of 'teamwork': A case study of a government secondary school in Bangladesh, *Social Science Review*, 37(2), 183-199.
- Islam, M. K. & Tithi, M, U. (2015). Dealing with Students' Misbehavior to Develop Good Classroom Discipline. *Bangladesh Journal of Educational Research*, 1(1), 19-27.
- Jarolimek, J. (1981). The social studies: An overview. *Teachers College Record*, 82(6), 3-18.
- Kaur, M. (2013). Blended learning-its challenges and future. *Procedia-social and behavioral sciences*, 93, 612-617.
- Kochar, S. K. (1983). *Teaching of Social Studies*. Sterling Publishers Private Limited.
- Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary issues in technology and teacher education*, 9(1), 60-70.
- Kopish, M. A., Shahri, B., & Amira, M. (2019). Developing globally competent teacher candidates through cross-cultural experiential learning. *Journal of International Social Studies*, 9(2), 3-34.

- Levstik, L.S., & Tyson, C.A. (Eds.) (2008). *Handbook of Research in social studies education*. Routledge
- MacSuga-Gage, A. S., Simonsen, B., & Briere, D. E. (2012). Effective teaching practices: Effective teaching practices that promote a positive classroom environment. *Beyond Behavior*, 22(1), 14-22.
- Magill, K. R., & Salinas, C. (2019). The primacy of relation: Social studies teachers and the praxis of critical pedagogy. *Theory & Research in Social Education*, 47(1), 1-28.
- Michaels, J. V. (1956). *Social Studies for children in a Democracy*. Prentice-Hall, Inc.
- Smittle, P. (2003). Principles for effective teaching. *Journal of Developmental Education*, 26(3), 10-16.
- Stevens, M., Borup, J., & Barbour, M. K. (2018). Preparing social studies teachers and librarians for blended teaching. *Contemporary Issues in Technology and Teacher Education*, 18(4), 648-669.
- William, D., & Thompson, M. (2008). Integrating assessment with learning: What will it take to make it work?. Routledge.
- আব্দুল মালেক ও লুৎফর রহমান, (২০০০). *সামাজিক বিজ্ঞান শিক্ষণ*, ঢাকা: মাধ্যমিক শিক্ষা উন্নয়ন প্রকল্প, শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- শরিফা খাতুন (১৯৭৫), *মাধ্যমিক বিদ্যালয়ে সামাজিক বিজ্ঞান শিক্ষণ*, ঢাকা: বাংলা একাডেমী।
- শিক্ষা মন্ত্রণালয় (২০১০), *জাতীয় শিক্ষানীতি-২০১০*, ঢাকা: শিক্ষা মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার।
- শ্রী গৌরদাস হালদার, (১৯৮৬), *শিক্ষণ প্রসঙ্গে শিক্ষার ইতিহাস*, কলিকাতা: ব্যানার্জী পাবলিশার্স।
- সেলিনা বানু ও খাইরুল ইসলাম (২০১২), *সামাজিক বিজ্ঞান শিক্ষণ*, ঢাকা : প্যাপিরাস।

1. Course Number: TC 138

Course Title: Teaching Mathematics

2. Credit Hours: 4

3. Course Description

This course is designed to help students acquire necessary competencies for a mathematics teacher. A mathematics teacher needs a deep understanding of (a) what mathematics is and how it works, (b) school mathematics curricula (c) how to use mathematics teaching learning strategies (d) creative use of resources for teaching mathematics (e) assessment of mathematics learning and (f) teaching and learning of mathematics outside classroom. With these understanding a teacher is expected to develop a lesson plan and implement the plan in classroom.

4. Course Objectives

This objectives are to help learners to

- a. perceive the role and required competencies of a mathematics teacher.
- b. explain the beliefs about the nature of mathematics.
- c. describe the aims, objectives, structure and other features of school mathematics curricula in Bangladesh
- d. identify and apply appropriate teaching method in classroom mathematics teaching learning activities
- e. select and prepare the appropriate instructional materials for mathematics teaching-learning activities
- f. examine different techniques of assessing mathematics learning
- g. develop the skills to prepare unit and daily lesson plan for effective mathematics teaching and learning

5. Course Contents

Contact Hours

Unit 1: Nature of Mathematics

3

Learning Outcomes

At the end of this unit learners will be able to

- a. explain what mathematics is
- b. identify Nature of Mathematics, Mathematics learning and Mathematics teaching

Content

- General perception about mathematics
- Philosophical views about nature of mathematics, Mathematics teaching and Mathematics learning

Unit 2: Competencies of a mathematics teacher

3

Learning Outcomes

At the end of this unit learners will be able to

- a. specify the different roles of mathematics teacher in the classroom
- b. identify competencies needed for a classroom mathematics teacher

Content

- Competencies needed for a mathematics teachers
 - Professional knowledge
 - Professional practice
 - Professional attributes
 - ICT integration

Unit 3: Understanding Curriculum and Curriculum Materials of Bangladesh

6

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss characteristics of a mathematically literate person
- b. analyse the primary and secondary mathematics curricula in Bangladesh
- c. identify pedagogical approach in presenting the content in mathematics textbooks

Content

- Aims of mathematics education in global perspective: developing Mathematical literacy
- Characteristics and focus of Mathematics curricula (primary and secondary) of Bangladesh in global mathematical context
- Types of learning (cognitive, psychomotor or affective) emphasized
- Organization of content
- Pedagogical approach in presentation of content in School Mathematics Textbook

Unit 4: Principles, Methods & Techniques for Teaching Secondary Mathematics

8.5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain principles of teaching mathematics
- b. describe the content and process standards of teaching mathematics
- c. illustrates different teaching methods and techniques
- d. apply appropriate techniques and methods in particular situation

Content

- Principles of teaching mathematics
- Content Standard and Process Standard in School Mathematics Education
- Earnest's Model for Teaching Mathematics
- Inductive-deductive, analytic synthetic method, heuristic method, model method, Poyla's problem solving, Inquiry Based Mathematics Education (IBME)
- Brain storming, concept mapping, mind-mapping, co-operative learning, mini lecture, question-answer, listing, identifying true-false, identifying mistakes, poster presentation, games, practical work, problems and puzzles

Unit 5: Resources for Teaching Mathematics

4.5

Learning Outcomes

At the end of this unit learners will be able to

- a. identify appropriate models and materials to use in teaching mathematics
- b. develop different models and materials to use in teaching mathematics
- c. demonstrate the developed models and materials to use in teaching mathematics

Content

- Pedagogical consideration for identifying and selecting materials (including digital resources) for mathematic teaching
- Developing and demonstrating 2-D and 3-D models and materials (including digital resources)

Unit 6: Teaching and learning mathematical content aligned with resources

4.5

Learning Outcomes

At the end of this unit learners will be able to

- a. depict the key concepts of number, algebra, geometry, measurement and data handling
- b. develop the skills to connect the concepts of contents with the teaching approaches and appropriate resources

Content

- Teaching and learning Number
- Teaching and learning Algebra
- Teaching and learning Geometry
- Teaching and learning Measurement
- Teaching and learning Data Handling

Unit 7: Assessment in Mathematics

6

Learning Outcomes

At the end of this unit learners will be able to

- a. select appropriate tools for assessing learners learning of mathematics concepts, mathematical process skills and values

Content

- Formative assessment of mathematics learning
- Assessing cognitive learning: MCQ and Essay type creative questioning for learners' cognitive learning in mathematics
- Assessing psychomotor (mathematical Process Skills) and affective learning (Values) in mathematics through continuous assessment

Unit 8: Preparing a lesson plan for Mathematics class

4.5

Learning Outcomes

At the end of this unit learners will be able to

- a. differentiate among year plan, unit plan and lesson plan
- b. describe the components of lesson plan
- c. prepare unit plan and lesson plan for secondary mathematics class

Content

- Year plan, unit plan and lesson plan
- Component of lesson plan
- Preparation of lesson plan and unit plan

6. Instructional Strategies

- a. Lecture and classroom interaction
- b. Group study and discussion
- c. Individual/pair/group presentation
- d. Problem Solving Activities
- e. Role play, Simulation, Brainstorming, Concept mapping, mind mapping

7. Assessment

- a. In-course Examinations
- b. Semester Final Examination
- c. Assignment on developing teaching models and materials

8. Recommended Books, Journals and reports

- Goos, M., Stillman, G., & Vale, C. (2007). *Teaching Secondary School Mathematics: Research and Practice for the 21st Century*. Allen & Unwin
- Beswick, K. (2012). Teachers' Beliefs about School Mathematics and Mathematicians' Mathematics and Their Relationship to practice. *Educational Studies in Mathematics*, 79(1), 127-147. DOI 10.1007/s10649-011-9333-2
- Sullivan, P. (2011). *Teaching Mathematics: Using Research-informed Strategies*. ACER Press.
- Hassard, J. (2005), *The Art of Teaching Science: Inquiry and Innovation in Middle School and High School*. Oxford University Press.
- Venville, G. & Dawson, V. (Eds). (2004). *The Art of Teaching Science*. Allen &Unwin.

1. Course Number: TC 139

Course Title: Teaching Physical Science

2. Credit Hour: 4

3. Course Description

This course is designed to help learners acquire necessary competencies for a Physical science teacher. This course includes what a Physical Science teacher needs to acquire, i.e. a deep understanding of (a) what science is and how it works, (b) school science curricula (c) Inquiry-based science teaching learning strategies (d) creative use of resources for teaching sciences (e) assessment of science learning and (f) Planning for science lessons. With these understanding a Physical Science teacher is expected to develop a lesson plan and implement the plan in classroom.

4. Course Objectives

This course will help learners to

- a. comprehend the role and required competencies of a science teacher.
- b. develop understanding of what science is and how science works.
- c. internalize the aims, objectives, emphases and other features of school science curricula in Bangladesh
- d. select the appropriate instructional materials for Physical science teaching-learning activities
- e. understand fundamental principles of inquiry based science teaching and learning
- f. internalize the basic features of science teaching-learning strategies aligned with constructivism
- g. analyse principles and techniques of assessing Physical Science learning
- h. develop the skills of preparing unit and daily lesson plan for effective Physical science teaching and learning

5. Course Contents

Contact hours

Unit 1: Competencies of a Science teacher

3

Learning Outcomes

After completing this unit learners will be able to

- a. identify competencies needed for a Physical Science teacher

Content

- Competencies needed for a Physical Science teacher
 - professional knowledge
 - professional practice and
 - professional attributes
- Competency Standard for secondary science teachers in Bangladesh

Unit 2: Nature of Science

3

Learning Outcomes

After completing this unit learners will be able to

- explain what science is
- identify Nature of Science and Scientific Inquiry
- describe how scientific community works

Content

- Science as a knowledge about Nature and Science as an inquiry to the Nature.
- Knowledge about Science

- i. Nature of Scientific Knowledge
 - ii. Nature of scientific inquiry and
 - iii. Scientific enterprise
- Nature of Science and Scientific Inquiry

Unit 3: Physical Science Education in Bangladesh Context

4.5

Learning Outcomes

After completing this unit learners will be able to

- a. describe aims of School Science Education
- b. discuss characteristics of a scientifically literate person
- c. analyse the primary and secondary science curricula in Bangladesh
- d. identify pedagogical approach in presenting the content in science textbooks

Content

- Aims of Science Education in global perspective: Developing Scientific literacy, Developing science professionals
- Content of school science: Science knowledge, Science Process and Investigation Skills and Scientific Values
- Status of science education in Bangladesh (enrolment, teaching-learning activities, assessment)
- Area of teaching Physical Science: Physics, Chemistry, Earth and Space Science
- Relations of Physical Science with other branches of Science
- Characteristics and focus of Physical Science in Primary and Secondary Science curricula in Bangladesh
 - i. Type of learning (cognitive, psychomotor or affective) emphasized
 - ii. Organization of Content discrete factual information or integrated big themes
 - iii. Pedagogical approach in presentation of content in Textbook and teachers' supporting materials
 - iv. Process skills, Attitudes and Values that are intended to be promoted through Teaching learning of Science

Unit 4: Science teaching strategies aligned with social constructivism

4.5

Learning Outcomes

After completing this unit learners will be able to

- a. explain Conceptual Change Model as a general model for constructivist science teaching
- b. select appropriate teaching-learning methods and techniques for teaching science considering ILO and assessment techniques
- c. explain the rationale for inquiry based science teaching and learning
- d. discuss common steps of inquiry based science teaching and learning

Content

- Alignment of intended learning outcome, teaching-learning activities and assessment in Science
- Conceptual Change model and its relation with learning theory
- Brain-storming, concept mapping, POE, 5E, mind-mapping, Analogy, group learning (Collaborative & co-operative learning),
- learning science outside classroom, Science fair, Science club
- Classroom questioning (Low and High inquiry) to develop thinking ability and metacognition
- Inquiry-based Science teaching and learning

- i. What is inquiry based science teaching and learning?
- ii. Necessity of inquiry based science teaching-learning – Development of science knowledge, process skills and values, developing NOS and SI
- iii. Framework for inquiry based science education
- iv. Verification, structured inquiry, guided inquiry and open inquiry
 - v. A sample investigation from Primary Science curriculum in Bangladesh
 - vi. A sample investigation from secondary science curriculum in Bangladesh.
- vii. Project based learning as an inquiry based science learning

Unit 5: Using Resources for teaching Physical sciences

4.5

Learning Outcomes

After completing this unit learners will be able to

- a. exemplify different types of resources for teaching physical science
- b. identify pedagogical considerations needed for selecting instructional materials for teaching physical science
- c. prepare low cost and improvised materials for teaching physical science

Content

- Different types of resources for teaching physical science – print materials, ICT, Realia, models and artefacts
- Supporting IM for Physical Science teachers
- ICT application in teaching physical science: Pedagogical considerations
- Considerations for selecting and using instructional materials for teaching science- alignment with teaching-learning approaches and content.
- Preparing low cost, local and Improvised instructional materials for teaching physical science and its relation with creativity

Unit 6: Physical Science Laboratory

4.5

Learning Outcomes

After completing this unit learners will be able to

- a. discuss design features of Physical Science Laboratories
- b. identify, record keeping and care facilities in Physical Science Laboratory
- c. prepare Laboratory Manuals aligned with inquiry based laboratory work
- d. identify common accidents and take necessary precaution in Physical Science Laboratory

Content

- Importance and design of Physical Science Laboratory: Combined lecture room-cum-laboratory and separate laboratory
- Facilities in Physical Science Laboratory
 - Planning for collecting apparatus
 - Apparatus and chemicals requirement for laboratory work, demonstration purpose and general use
- Laboratory arrangement and care
- Record keeping of apparatus and chemicals
- Preparation of Laboratory Manuals aligned with inquiry based laboratory work
- Common accidents and safety issues in Physical Science Laboratory

Unit 7: Assessment in Physical Science

4.5

Learning Outcomes

After completing this unit learners will be able to

- a. Select appropriate tools for assessing learners learning of science concepts, science process skills and science values

Content

- Formative assessment for science learning in classroom
- Assessing cognitive learning: MCQ and Essay type creative questioning for learners' cognitive learning in science
- Assessing psychomotor (science process skills) and affective learning (Values) in science through continuous assessment

Unit 8: Preparing a lesson plan for science class

4.5

Learning Outcomes

After completing this unit learners will be able to

- Prepare yearly and unit plan for teaching physical science
- Develop lesson plans for different science lessons including inquiry based science lessons

Content

- Year Planning and its consideration for a physical science course
- Unit plan (CoRe) for a science unit
- Preparation of Year, unit and lesson plan
- Splitting learning outcomes
- Lesson plan for different science lessons

6. Teaching Strategies and Techniques: Discussion, Lecture, Role play, Simulation, Brainstorming, Concept mapping, mind mapping, presentation, report writing, Inquiry

7. Assessment

- Term final examination – Multiple Choice Question and Essay type questions (20+40=60)

8. References:

Contant, L. T., Tweed, A. L., & Bass, J. E. (2018). *Teaching Science through Inquiry-Based Instruction*. Pearson

Egger, A. E. (2021, July 23). *What is Teaching the Process of Science?*. Pedagogic Service. <https://serc.carleton.edu/30459.1409>

Gillies, R. M. (2020). *Inquiry-Based Science Education*. CRC Press

Hassard, J. (2005), *The Art of Teaching Science: Inquiry and Innovation in Middle School and High School*, New York: Oxford University Press

Peters, J. M. & Stout, D. L. (Eds.), *Science in Elementary Education: Methods, Concepts, and Inquiries*. Upper saddle river: Pearson, Merrill, and Prentice Hall.

Venville, G. & Dawson, V. (Eds). (2004). *The Art of Teaching Science*, Crows Nest: Allen & Unwin.

Venville, G. & Dawson, V (Eds). (2007). *The Art of Teaching Primary Science*, Crows Nest: Allen & Unwin.

মোহাম্মদ নূরে আলম সিদ্দিকী ও অন্যান্য (২০১৯), *প্রাথমিক বিজ্ঞান: বিষয়ভিত্তিক ও শিক্ষণবিজ্ঞান*, ময়মনসিংহ: জাতীয় প্রাথমিক শিক্ষা একাডেমী।

মোহাম্মদ নূরে আলম সিদ্দিকী ও অন্যান্য (২০১৮), *রসায়ন শিক্ষণ*, ঢাকা: শিক্ষা মন্ত্রণালয়।

1. Course Number: TC 140

Course Title: Teaching Biological Science

2. Credit Hours: 4

3. Course Description

This course is designed to equip students with necessary competencies of a Biology teacher. This course will help transform a student to a Biology teacher by developing his/her understanding of Biology curricula and curricular materials, resources for teaching Biological Science, teaching learning strategies for Biological Science, assessment of Biology learning and planning for Biology lessons.

4. Course Objectives

The objectives are to help learners to

- a. comprehend the competencies of a Biology teacher.
- b. internalize the nature of Biological Science.
- c. comprehend how to use curriculum and curricular materials.
- d. select the appropriate instructional materials for Biology teaching learning activities.
- e. develop resources for teaching Biological Science.
- f. explain fundamental principles of Biological Science teaching learning strategies aligned with social constructivism.
- g. internalize the basic principles and techniques of assessing Biological Science learning.
- h. develop the skills of instructional planning for effective Biology teaching.

5. Course Contents

Contact Hours

Unit 1: Competencies of a Biology teacher

3

Learning Outcomes

At the end of the unit learners will be able to

- a. identify competencies of a classroom Biology teacher

Content

- Competencies needed for a classroom Biology teacher
 - professional knowledge
 - professional practice
 - professional attributes

Unit 2: Biological Science in science curriculum of Bangladesh

Learning Outcome

6

At the end of the unit learners will be able to

- a. explain the aims and scope of Biology education in Bangladesh
- b. comprehend the characteristics and focus of Biological Science in science curriculum of Bangladesh
- c. comprehend the use of curricula in classroom practice
- d. identify the teaching learning approaches embedded in science textbook and teachers' supporting materials

Content

- Aims and scopes of Biology Education in Bangladesh
- Characteristics and focus of Biological Science in primary and secondary science curriculum of Bangladesh
- Teaching learning approaches of science textbook and teachers' supporting materials

Unit 3: Resources for Teaching Biological Science

7.5

Learning Outcome

At the end of the unit learners will be able to

- develop different types of resources in teaching Biological Science
- apply the principles and knowledge of collecting, culturing, and preserving materials
- develop low cost, no cost and improvised instructional materials for teaching Biological Science

Content

- Resources- types (based on availability, sensory, ICT)
- Principles of collecting, culturing, and preserving of Biology materials
 - collecting, culturing and preserving of animals like protozoan, sponges, worms, mollusks, arthropods & vertebrates (fish, amphibian, reptiles, birds, mammals)
 - important preservatives for preservation of animals
 - preparation for the microscopes
 - collection techniques of different groups of plants
 - important preservatives for different groups of plant
 - preservation techniques (in preservatives and as herbarium sheets)
 - culture: bacterial culture and tissue culture
- Use and development of low cost, no cost and improvised materials

Unit 4: Teaching learning strategies in Biological science

9

Learning Outcome

At the end of the unit learners will be able to

- explain Conceptual Change Model and its relationship with learning theory
- select appropriate teaching learning strategies required for Biological Science
- explain inquiry-based teaching learning in Biology
- explore effective Biology laboratory teaching and learning

Content

- Alignment of intended learning outcome, teaching learning activities and assessment in Biological Science
- Conceptual Change Model and its relationship with learning theory
- Brain storming, mind mapping, concept mapping, POE, 5E, analogy, group learning (collaborative and cooperative learning), role play, learning Biology outside classroom
- Inquiry based teaching learning in Biology:
 - concept, necessity, framework, types, plan and preparation for a teacher before inquiry class
 - sample investigation from primary and secondary science curriculum of Bangladesh
- Project based learning
- Classroom questioning (low and high inquiry) to develop thinking ability and metacognition

Unit 5: Biological Science Laboratory

5

Learning Outcomes

At the end of the unit learners will be able to

- discuss features to design of Biological Science laboratory
- identify record keeping and care facilities in Biological Science laboratory
- prepare Laboratory Manuals aligned with inquiry based laboratory work
- identify common accidents and take necessary precaution in Biological Science laboratory

Content

- Importance and design of Biological Science laboratory: Combined lecture room-cum-laboratory, separate laboratory and outdoor laboratory
- Facilities in Biological Science laboratory:
 - planning for collecting equipment, specimen and chemicals
 - equipment, specimen, model, skeleton and chemicals requirement for laboratory work, demonstration purpose and general use
- Laboratory arrangement and care
- Record keeping of equipment and chemicals
- Preparation of Laboratory Manuals aligned with inquiry based laboratory work
- Common accidents and safety issues in Biological Science laboratory

Unit 6: Assessment in Biological Science

Learning Outcome

5

At the end of the unit learners will be able to

- a. selects appropriate tools for assessing learners learning of Biological Science

Content

- Formative assessment for Biological Science learning in classroom
- Assessing cognitive learning: MCQ and Essay type creative questioning for learners' cognitive learning in Biological Science
- Assessing psychomotor (science process skills) and affective learning (values) in Biological Science

Unit 7: Preparation of lesson plan for Biological Science class

4.5

Learning Outcome

At the end of the unit learners will be able to

- a. develop yearly and unit plan for Biology
- b. develop lesson plan for different Biology lessons

Content

- Year Plan: purpose, consideration, and structure
- Unit plan: purpose, consideration, and structure
- Lesson plan: purpose, consideration, and structure
- Development of year, unit and lesson plan

6. Instructional Strategies

- a. Lecture
- b. Discussion
- c. Demonstration
- d. Group work

7. Assessment

- a. Two in course examinations 30
- b. Semester final examination 60
- c. Assignment 10

8. Recommended Books, Journals, and reports

- Renner, J. (1986). *Teaching Biology*. Macmillan, London.
- Harding, D. E., Volker, Roger, P., & Fagle, D. L. (1969). *Creative Biology Teaching* Iowa State University Press, Ames Iowa.
- Miller, D. F., & Blaydes, G. W. (1962). *Method and Materials for Teaching the Biological Science*. McGraw-Hill Book Company.
- Major, W. V. (1978). *Biology Teacher's Handbook*. John Wiley and Sons.
- Hassard, J. (2005). *The Art of Teaching Science: Inquiry and Innovation in Middle School and High School*. Oxford University Press
- Peters, J. M., & Stout, D. L. (2011). *Science in Elementary Education: Methods, Concepts, and Inquiries* (11th ed.). Pearson, Merrill, and Prentice Hall.
- Venville, G. & Dawson, V. (2004). *The Art of Teaching Science*. Allen & Unwin.
- Venville, G. & Dawson, V. (2007). *The Art of Teaching Primary Science*. Allen & Unwin.
- Venville, G. & Dawson, V. (2012). *The Art of Teaching Primary Science*. Allen & Unwin.
- Hoefnagels., & Marielle. (2020). *Biology: concepts and investigations*. McGraw Hill.
- Jain, B. P. (2018). *Pedagogy of Biological Science*. Laxmi Book Depot.
- Entwistle, J., N. (2015). *Handbook of educational ideas and practices*. Routledge.
- Ahmad, J. (2011). *Teaching of Biological Sciences* (2nd ed.). Phil.
- Gibb, T. J., & Oseto, C. Y. (2005). *Arthropod collection, and identification and identification (laboratory and field techniques)*. Academic Press.
- Paulson, G. S. (2005). *Handbook to the Construction and Use of Insect Collection and Rearing Devices*. Springer Netherlands.
- Oman, P. W., & Cushman, D. (2005). *Collection and preservation of insects*. Fredonia Books.
- Venugopal, G. (2005). *Teaching of Biology*. Ram Publishers.
- Sivarajan, K., & Faziluddin, A. (2003). *Methodology of Teaching and Pedagogic Analysis*. Calicut University, Calicut.
- Aggarwal, J. C. (1996). *Principles, methods and techniques of teaching*. Vikas Publishing House Pvt. Ltd.
- Lincoln, R. J., & Sheals, J. G. (1979). *Invertebrate Animals: Collection and Preservation*. Cambridge Univ. Press.
- এস এম হাফিজুর রহমান, মোহাম্মদ নূরে আলম সিদ্দিকী, মো: আবদুল জলিল, মুফতি মো: ইব্রাহীম (২০১৪), প্রাথমিকবিজ্ঞান: বিষয়জ্ঞান ও শিক্ষণবিজ্ঞান, ময়মনসিংহ: জাতীয় প্রাথমিক শিক্ষা একাডেমী

1. Course Number: TC 141

Course Title: Teaching Children with Special Educational Needs: One

2. Credit Hours: 4

3. Course description

This course is designed to help learners understand basic teaching approaches and strategies for teaching students with SEN in both special and inclusive settings. The course also comprises range of techniques to develop literacy of students with SEN. It will provide students with specialized assessment strategies suitable for students with SEN.

4. Course Objectives

The objectives are to help learners to

- a. understand essential skills used by students with SEN.
- b. acquire the skills of literacy and numeracy to teach children with SEN.
- c. acquire knowledge to teach SEN in achieving reading, writing and numeracy.
- d. comprehend the concept of inclusive pedagogy and understand the specific challenges for SEN.
- e. acquire knowledge of Pre-primary education for students with SEN.
- f. understand the application of different assessment system.

5. Course Contents

Contact Hours

Unit 1: Numeracy and Literacy

4

Learning Outcomes

At the end of the unit learners will be able to

- a. describe the concept of literacy and numeracy
- b. explain the challenges for SEN to achieve reading , writing and numeracy
- c. follow the process of bottom-up, top-down and mixed system to teach reading

Content

- Concept of literacy and numeracy
- Common challenges of students with SEN in achieving reading, writing and numeracy
- Models of reading (bottom-up, top-down and mixed)
- Strategies to develop reading, writing and numeracy

Unit 2: Essential skills for teaching Children with Special Educational Needs

10

Learning Outcomes

At the end of this unit learners will be able to

- a. explain and apply the essential skills for teaching children with Special Educational Needs
- b. recognize the mode of communication to address the challenges for SEN in the classroom
- c. apply the techniques of Braille system, Sign language, ADL and O&M
- d. demonstrate basic skills on different software and application used for teaching student with SEN

Content

- Activities of Daily Living (ADL)
- Orientation and Mobility (O&M)
- Introduction to sign language, Sign supported Bangla, Finger spelling and Leap reading
- Introduction with Braille, Abacus, Taylor frame and tactile aids
- Use of technology for teaching student with SEN

Unit 3: Early Childhood Education

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of early childhood for the pre-primary children with SEN
- b. review and apply the strategies appropriate for pre-reading and writing for SEN

Content

- Concept of early childhood development
- Pre-primary education for students with SEN
- Pre-reading, Pre-writing and Pre-numeracy Skill Development
- Measures to be taken for pre-school learning for students with SEN

Unit 4: Inclusive Pedagogy

6

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the concept of inclusive pedagogy for SEN
- b. review the challenges of students with SEN in regular classroom
- c. outline the manner to incorporate Multi-sensory Teaching Learning for SEN
- d. describe the behavioural management and coping issue applicable for SEN
- e. practice evidence based teaching strategies for Inclusive classroom

Content

- Concept of inclusive pedagogy
- Specific challenges of students with SEN in regular classrooms
- Strategies (differentiated and cooperative learning) to address challenges of students with SEN
- Multi-sensory Teaching Learning Materials
- Evidence based teaching strategies for Inclusive classroom

Unit 5: Assessment of Learning

6

Learning Outcomes

At the end of this unit learners will be able to

- a. outline the manner in which the assessment system can be applicable to evaluate SEN
- b. describe the ways by which other inclusive assessment modalities can be applicable for SEN

Content

- Formative Assessment
- Summative Assessment
- Continuous Assessment
- School Based Assessment
- Inclusive Assessment (Multi-team Assessment: Self, Peer, Teacher, Parent, Community)

6. Practical

9

Total duration of practical works during whole semester will be equivalent to nine contact hours or specified by the course teacher(s). The topics and modality of the practical examination will be specified by the course teacher from the following contents-

- Activities of Daily Living (ADL)
- Orientation and Mobility (O&M)
- Introduction to sign language, Sign supported Bangla, Finger spelling and Leap reading

- Introduction with Braille, Abacus, Taylor frame and tactile aids
- Digital technology for teaching student with SEN

Along with other requirements, students must have to obtain minimum required marks in Practical to pass the course. The practical examination will be initiated by the course teacher/s, however, the examination panel will be composed of one external examiner and the respective course teachers.

7. Instructional Strategies

- Lecture
- Discussions
- Demonstrations
- Presentation
- Question-Answers
- Observation
- Audio-visual equipment
- Practice and Review
- Peer tutoring
- Blended approach (online-offline, distance mode)

8. Assessment

- | | |
|---|--------------|
| d. One In-course Examinations | 15 × 1 = 15 |
| d. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| e. Practical | = 25 |

9. Recommend Books, Journals and Reports

- Alexander, R. (2004) Still no pedagogy? Principle, pragmatism and compliance in primary education. *Cambridge Journal of Education*, 34(1), 7–33.
- Browder, D. M., & Spooner, F. (2006). *Teaching Language Arts, Math, and Science to Students with Significant Cognitive Disabilities*. Baltimore, MD: Brookes Publishing Company.
- Evans, D. (2017). Examining the Literacy within Numeracy to Provide Access to the Curriculum for All. In *Inclusive Principles and Practices in Literacy Education* (pp. 35-51). Emerald Publishing Limited.
- Florian, L. (2009). Towards inclusive pedagogy. In P. Hick, R. Kershner & P. Farrell (Eds.).
- Florian, L. (2010). The concept of inclusive pedagogy. *Transforming the role of the SENCO*, 61-72.
- Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal*, 37(5), 813-828.
- Fraser, D., & McGee, C. (2008). *The professional practice of teaching* (3rd ed.). South Melbourne, Victoria, Australia: Cengage Learning
- Fraser, D., Moltzen, R., & Ryba, K. (Eds.). (2000). *Learners with special needs in Aotearoa New Zealand* (2nd ed.). Palmerston North, New Zealand: Dunmore Press.
- Gillard, D. (2009), Us and them: a history of pupil grouping policies in England's schools. *Forum*, 51(1), 49–72.
- Hopkins, S., & Round, P. (2018). Building Stronger Teacher Education Programmes to Prepare Inclusive Teachers. In *Re-imagining Professional Experience in Initial Teacher Education* (pp.55-66). Singapore: Springer.
- Khan, T.A., Rahaman, M.M., Hornby, G., Sutherland, D., Everatt, J., & Greenwood, J. (2013).

Inclusive Education at Secondary Level in Bangladesh: Challenges and Recommendations. In J.Greenwood, J. Everatt,

- McLeskey, J., Rosenberg, M.S., & Westling, D.L. (2013). *Inclusion: Effective practices for all* (2nd ed.). Students. Boston, MA: Pearson
- Mitchell, D. (2014). *What really works in special and inclusive education: Using evidence-based teaching strategies* (2nd ed.). New York: Routledge.
- Psychology for inclusive education: New directions in theory and practice (pp.38–51). London, UK: Routledge Falmer.
- Rahaman, M.M. (2013). *Alternative Eye for the Third World: Inclusive Education Practices for Secondary Schools with Disabilities in Bangladesh* (pp.109). Saarbrücken, Deutschland/Germany.
- Rayner, S. (2007). *Managing special and inclusive education*. Los Angeles, CA: SAGE
- Scott, A., & Freeman-Moir, J. (Eds.). (2000). *Tomorrow's teachers: International and critical perspectives on teacher education*. Christchurch, New Zealand: University of Canterbury Press
- Tennyson, R.D. (2010). *Technology Enhanced Learning for People with Disabilities: Approaches and Applications*. Hershey, PA: Information Science Reference.
- Tuitt, F. (2003). Afterword: Realizing a more inclusive pedagogy. *Race and higher education: Rethinking pedagogy in diverse college classrooms*, 243-268.
- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মো: শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা : চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মো: শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমী।
- দিবা হোসেন ও রায়হান আরা জামান (২০২০), *একীভূত শিক্ষায় তথ্য ও যোগাযোগ প্রযুক্তি*, ঢাকা: Grants for Advanced Research in Education (GARE), শিক্ষা মন্ত্রণালয়, বাংলাদেশ সরকার।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শ্রবণ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।
- মুহাম্মদ মাহবুবুর রহমান (২০১৯), *একীভূত শিক্ষা*, ঢাকা; শিক্ষা মন্ত্রণালয়, টিকিউআই-২।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: TC 142

Course Title: Teaching Children with Special Educational Needs: Two

2. Credit Hours: 4

3. Course Description

This course is designed to provide learners with knowledge about different approaches of educating children with SEN. Special education is designed to ensure that students with disabilities are provided with an environment that allows them to be educated effectively. It is also essential to speed up their learning process. The role of a teacher should be very positive in order to maintain a quality teaching learning classroom environment. Thus, fulfilling their needs is possible only through planned strategies.

4. Course Objectives

The objectives are to help learners to

- a. ensure the application of teaching learning theories for better understanding of the children.
- b. ensure the usability of effective assistive devices to ameliorate the effects of disabilities that limit the ability to perform.
- c. enable teaching competencies to ensure that all children with SEN are addressed appropriately.
- d. orient teachers for flexibility and modification of curriculum for SEN.
- e. enhance the skill of counseling for children with SEN.

5. Course Contents

Contact Hours

Unit 1: Teaching-Learning Process

8

Learning Outcomes

At the end of this unit learners will be able to

- a. apply theories of learning in designing classroom learning experiences
- b. examine how these different theories address student assessment, motivation, self-regulation and classroom management

Content

- Learning processes of children with SEN
- Challenges in Teaching Children with SEN
- Application of T-L theories in teaching students with SEN
- Specialized methods for teaching students with SEN
 - Maternal reflective methods (MRM)
 - Total communication methods (TCM)
 - Applied Behavior Analysis (ABA)
 - TEACCH

Unit 2: Assistive Devices and Educational Technologies

12

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the type, characteristics and maintenance of assistive devices and Educational Technologies for children with SEN

Content

- Assistive Devices and Educational Technologies
 - Types, Characteristics and Maintenance for Children with Hearing Impairment

- Types, Characteristics and Maintenance for assistive devices and Educational Technologies Children with Visual Impairment
- Types, Characteristics and Maintenance for assistive devices and Educational Technologies Children with Neuro-developmental Disability

Unit 3: Teaching Competencies

8

Learning Outcomes

At the end of this unit learners will be able to

- a. identify the teachers standard which is appropriate to teach children with SEN
- b. explain the necessity for teacher development and Continuous Professional Development (CPD)

Content

- Teachers' Standard: Global and Local for children with SEN
- Specified Competencies for teaching learners with VI, HI and NDD
- Continuous Professional Development
- Teacher Development in Pre-service, In-service level

Unit 4: School Curriculum

6

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the importance of adaptation and modification of curriculum for SEN
- b. explain the significance of IEP and lesson plan
- c. analyze quality classroom and school management strategies

Content

- Curriculum Adaptation (modification and simplification)
- Individualized Educational Program (IEP)/ Negotiated Educational Plan (NEP)
- Lesson Plan
- Alternative Learning Competencies
- Classroom Management Strategies
- School Management Strategies

Unit 5: Guidance, Counseling and Collaboration

6

Learning Outcomes:

At the end of this unit learners will be able to

- a. explain the need for partnership between parent and teachers to obtain quality education for SEN
- b. describe the necessary of team teaching for SEN
- c. ensure a congenial environment through behaviour management

Content

- Personal guidance and counseling
 - Individual requirements, Social-emotional and Assistive device related support
- Educational guidance and counseling
 - Partnership between Learners, Parents, Teachers, Peer Group and School Authority
 - Guidance and Counseling for AD, Teaching-Learning, School Selection, Stress Management
 - Team Teaching
 - Co-Teaching
- Referral Services

6. Instructional Strategies

- Lecture
- Discussions
- Demonstrations
- Presentation
- Question-Answers
- Observation
- Audio-visual equipment
- Evidence-based practices
- Blended approach (offline- online, Distance mode)

7. Assessment

- | | |
|---|--------------|
| a. Two In-course Examinations | 15 × 2 = 30 |
| b. Semester Final Examination (MCQ + Essay) | 20 + 40 = 60 |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

- Birnbaum, R. (2010). *Choosing a school for a child with special needs*. London: Jessica Kingsley Publishers.
- Ellis, A. K. (2017). *Teaching, learning, and assessment together: Reflective assessments for elementary classrooms*. Routledge.
- Fraser, D., Moltzen, R., & Ryba, K. (Eds.). (2000). *Learners with special needs in Aotearoa New Zealand* (2nd ed.). Palmerston North, New Zealand: Dunmore Press.
- Jeffrey D.M., McConkey R., and Hewson S., *Teaching the Handicapped Child*, A Condor Book Souvenir Press Ltd London, 1978.
- Lewis R.B., and Doorlag D.H., *Teaching Special Students in General Education Classroom Sixth Edition*, Merrill Prentice Hall, 2003
- Mercer C.D., and Mercer A.R., *Teaching Students with Learning Problems Sixth Edition*, Merrill Prentice Hall 2001
- Rahaman, M.M., & Sutherland, D. (2011). Teachers' Struggles in Applying Inclusive Education Practices for Students with Disabilities at Secondary Schools in Bangladesh. *Bangladesh Education Journal*, 10 (1), 31-46.
- Stainback, S., & Stainback, W. (Eds.). (1996). *Inclusion: A guide for educators*. Baltimore, MD: Paul H. Brookes
- Stakes, R., & Hornby, G. (1996). *Meeting special needs in mainstream schools: A practical guide for teachers*. London, UK: David Fulton Publishers.
- এম. তারিক আহসান ও অন্যান্য (২০১৭), *নিঃশব্দ ভাব বিনিময়*, ঢাকা: এসিআইই।
- দিবা হোসেন ও মোঃ শাহরিয়ার হায়দার (২০০৯), *দৃষ্টি প্রতিবন্ধিতা ও শিক্ষা*, ঢাকা : চাইল্ড সাইট ফাউন্ডেশন।
- দিবা হোসেন, মোঃ শাহরিয়ার হায়দার ও রায়হান আরা জামান (২০২১), *প্রতিবন্ধিতা শব্দকোষ*, ঢাকা: বাংলা একাডেমী।
- দিবা হোসেন ও রায়হান আরা জামান (২০২০), *একীভূত শিক্ষায় তথ্য ও যোগাযোগ প্রযুক্তি*, ঢাকা: Grants for Advanced Research in Education (GARE), শিক্ষা মন্ত্রণালয়, বাংলাদেশ সরকার।
- নিরাফাত আনাম, এম তারিক আহসান ও নাসিমা আক্তার (২০১১), *শব্দ প্রতিবন্ধিতা: কারণ, প্রতিকার ও উন্নয়ন সহায়তা*, ঢাকা: সিএসআইডি।
- মুহাম্মদ মাহবুবুর রহমান (২০১৯), *একীভূত শিক্ষা*, ঢাকা; শিক্ষা মন্ত্রণালয়, টিকিউআই-২।
- মোঃ শাহরিয়ার হায়দার ও জান্নাতুল ফেরদৌস (২০২১), *বিশেষ চাহিদাসম্পন্ন শিশুর ব্যবস্থাপনা*, ঢাকা: বিশ্ব সাহিত্য ভবন।

1. Course Number: TC 151

Course Title: Teaching Business: One

2. Credit Hours: 4

3. Course Description

As teaching is driven to bring positive change in the learners' lives, it is essential that the teaching and learning is driven in the correct path. Business education is said to be the ultimate entrepreneurial and commercially viable learning path for learners to pursue business as their profession. The goal of education is to have effective commerce and business knowledge and for that effective and professional. The teachers must know the teaching acts and acquire teaching skills and classroom teaching pedagogy with teaching theories. The course is divided in two parts covering all the necessary leanings and practices for Business Educations in all the levels in Bangladesh and beyond.

4. Course Objectives

The objectives are to help learners to

- a. identify various realms and aspects of business education at various levels in Bangladesh.
- b. be able to correlate the general aims and objectives of education with those of commerce education.
- c. analyze and evaluate various commerce curriculums in Bangladeshi schools, colleges and universities.
- d. list and practice the effectiveness of various teaching methods and techniques of teaching commerce.
- e. concrete understanding on position of commerce education with relation to other subjects.
- f. ability to prepare a thorough lesson plan for specific commerce subject at several levels

5. Course Contents

Contact Hours

Unit 1: Introduction and Basic Concepts

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the core concepts of business teaching practices
- b. identify and illustrate the managerial business functions and goal for managers and how adequate teaching will ensure the outcome
- c. describe the scope business teaching in Bangladesh

Content

- Business Curriculum in Bangladesh – Secondary and Tertiary, public Vs. Private
- Trends and issues of Business teaching
- Dimension of Commerce- Science or Arts?
- Commerce Education in various levels in Bangladesh
- Significance of Commerce Education

Unit 2: Aims and Objectives

5

Learning Outcomes

At the end of this unit learners will be able to

- a. differentiate between general and commerce based aims and objective of education
- b. analyze different types of instructional and behavioral objectives in terms of business education
- c. interpret the criteria for selecting learning outcomes for commerce education and ways to confirm them

Content

- Concept of Aims and Objectives
- General Aims and Objectives
- Instructional Objectives
- Three Domains and Commerce Education
- Criteria for Section of aims and Objectives
- Learning outcomes of Commerce teaching

Unit 3: Commerce Curriculum

5

Learning Outcomes

At the end of this unit learners will be able to

- a. describe the fundamentals curriculum development in business education
- b. list down different types of business curriculum at various levels of education in Bangladesh
- c. compare international curriculum and list ways to innovate curriculum for better business education

Content

- Meaning of Curriculum
- New concept of Innovation of Curriculum for Commerce
- Utility of Curriculum for Commerce
- Secondary Curriculum of Commerce
- Higher Secondary Curriculum of Commerce
- Tertiary Curriculum of Commerce

Unit 4: Methods of Teaching

7

Learning Outcomes

At the end of this unit learners will be able to

- a. identify different types of interest rates and return summaries
- b. analyze different types of corporate bonds and calculate bond valuation

Content

- Introduction and Scope
- Philosophical View of Teaching Methods
- Methods of Teaching Commerce
- Teaching Techniques
- Best Approaches to Teaching Commerce

Unit 5: Correlation with Other Subjects

8

Learning Outcomes

At the end of this unit learners will be able to

- a. explain the decision between debt and equity capital

- b. categorize different types of stock and common stock valuation
- c. develop decision making strategies on common stock value

Content

- Introduction and Meaning of Correlation
- Need and Importance of Correlation with Other Subjects
- Types of Correlation
- Subject Wise Correlation

Unit 6: Classroom Teaching Aids

5

Learning Outcomes

At the end of this unit learners will be able to

- a. explain various classroom teaching aids suitable for business
- b. evaluate the best source for teaching aids in different types of learners and schools (institutes)
- c. appraise instructional aids used in classrooms

Content

- Managing strategy and planning
- Introduction- Meaning of teaching Aids
- Types of Teaching
- Sources of Aids in all economy
- Instructional Aids used in Commerce

Unit 7: Comparative Business Courses

5

Learning Outcomes

At the end of this unit learners will be able to -

- a. identify and present various commerce courses within and outside local curriculum
- b. evaluate the effectiveness of commerce courses and their use in making effective business leaders
- c. compare the different trends, drivers and forces in developing and updating commerce curriculum around the world

Content

- Commerce courses in vocational and traditional scope
- Applying knowledge into skills- Business skills vs. life skills
- Business Courses in South Asia- feature and impact
- Business Courses in Asia Pacific - feature and impact
- Business Courses in the developed countries- feature and impact

6. Instructional Strategy

- a. Lecture
- b. Question-Answer
- c. Pair-work
- d. Group Discussion
- e. Individual Presentation
- f. Debate
- g. Project Method
- h. Role Playing etc.

7. Assessment

b. Two In-course Examinations	$15 \times 2 = 30$
c. Course Final Examination (MCQ + Essay)	$20 + 40 = 60$
d. Assignment/Presentation	10

8. Recommended Books, Journals and Reports

Bangladesh Curriculum of Commerce

National University Syllabus of Commerce subjects

Teaching of Commerce- Dr. Y.K. Singh. APH Publishing Corporation

Additional books and materials: As per course teacher's discretion.

1. Course Number: TC 152

Course Title: Teaching Business: Two

2. Credit Hours: 4

3. Course Description

This course will introduce students to the field of business and management and the role business plays in our society. The course offers an overview of basic business and management concepts, terminology, institutions, practices, and operations. It examines the various aspects of business management and their relationships with each other. Apart from familiarizing the students with the knowledge of general business terms, concepts, and theories, this course will help provide them with an overview of the necessary skills and abilities needed to succeed in a business school. The course is interactive in nature for students are expected to apply the previous module into teaching practice and industry attachment.

4. Course Objectives

The objectives are to help the learners to

- a. list and practice the effectiveness of various teaching methods and techniques of teaching commerce.
- b. concrete understanding on position of commerce education with relation to other subjects.
- c. ability to prepare a thorough lesson plan for specific commerce subject at several levels.

5. Course Contents

Contact Hours

Unit 1: Effective Business Teacher

4

Learning Outcomes

At the end of this unit learners will be able to

- a. differentiate the roles of regular subject teachers and Business course teachers
- b. discuss the importance of credible business teachers
- c. list and explain the effective features of business teaching and learning

Content

- Introduction and Meaning of effective teacher
- Qualities of a good Commerce Teacher
- Classification of an Effective Commerce Teacher- Personal & Professional
- Continuous Professional Development
- Teachers' Evaluation

Unit 2: Techniques of Teaching

4

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of teaching methodologies and rate the levels with appropriate importance
- b. list and explain characteristics of effective teaching methods
- c. explain the role of different teaching methods in teaching business studies

Content

- Objective of teaching methods
- Need of modern methods in business
- Characteristics of good teaching method
- Different methods of teaching commerce

Unit 3: Learning Materials for Business Students

5

Learning Outcomes

At the end of this unit learners will be able to

- a. define and categorize learning materials in order of effectiveness in teaching business
- b. discuss the advantages and challenges of different types of learning materials for business education
- c. explain ways to evaluate the effectiveness of learning materials in business

Content

- Meaning and definition Learning materials for Commerce
- Types of Learning Materials for Commerce
- Qualities of Learning Materials
- Evaluating the Effectiveness of Current Learning Materials

Unit 4: Textbook as Learning Material

6

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of textbook as fundamental learning material for business studies
- b. list and explain a variety learning materials aiding textbook
- c. explain the role of textbook and its importance in teaching business
- d. discuss various limitations and ways to overcome in teaching business with textbooks

Content

- Meaning and definition of textbook
- Characteristics of business subjects
- Qualities of a textbook
- Significance of textbook in business education
- Limitation with business textbooks and how to overcome them

Unit 5: Lesson Planning and Evaluation Approach

7

Learning Outcomes

At the end of this unit learners will be able to

- a. discuss the importance of lesson planning in business education at various levels of education
- b. categorize advantages of lesson plans and evaluate various types of lesson plans for business education
- c. write chapter wise learning outcomes for business education for various business courses
- d. present Lesson plan demo for different topics in business education

Content

- Meaning and Aims of Lesson Planning
- Advantages of Lesson Planning in Commerce
- Approaches to Lesson Planning
- Evaluation Techniques for Commerce
- Importance, Types and Effective Evaluation

Unit 6: Lesson Planning and Evaluation Approach

7

Learning Outcomes

At the end of this unit learners will be able to

- discuss the importance of pricing decisions to the economy and to the individual firm
- list and explain a variety of pricing objectives
- explain the role of demand in price determination
- discuss various distribution channel and value chain activities covering wholesalers to retailers to end consumers

Content

- Meaning and Aims of Lesson Planning
- Advantages of Lesson Planning in Commerce
- Approaches to Lesson Planning
- Evaluation Techniques for Commerce
- Importance, Types and Effective Evaluation

Unit 7: Assessment and Evaluation Approach

7

Learning outcomes

At the end of this unit learners will be able to

- discuss the importance of evaluation, historical background of evaluation
- list and explain a variety of tools of evaluation
- explain different types of test techniques in business education
- discuss various types of question and assessment examination to effectively assess students

Content

- Meaning of evaluation, historical background
- Test, examination, measurement and evaluation
- Tools and techniques of evaluation
- Types of questions and examinations
- Assessment techniques for business

6. Instructional Strategy

- Lecture
- Question-Answer
- Pair-work
- Group Discussion
- Individual Presentation
- Debate
- Project Method
- Role Playing etc.

7. Assessment

- | | |
|---|--------------------|
| a. Two In-course Examinations | $15 \times 2 = 30$ |
| b. Course Final Examination (MCQ + Essay) | $20 + 40 = 60$ |
| c. Assignment/Presentation | 10 |

8. Recommended Books, Journals and Reports

Bangladesh Curriculum of Commerce
National University Syllabus of Commerce subjects
Teaching of Commerce- Dr. Y.K. Singh. APH Publishing Corporation
Additional books and materials: As per course teacher's discretion.