

Outcome Based Education (OBE) Curriculum

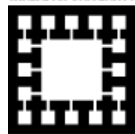
Bachelor of Social Science (Honors) in Economics

2025



Department of Economics
School of Arts and Social Science

VARENDRA UNIVERSITY



বরেন্দ্র
বিশ্ববিদ্যালয়

বরেন্দ্র বিশ্ববিদ্যালয়

V A R E N D R A U N I V E R S I T Y

Table of Content

Sl. No.	Title	Page No.
Part A		
1.	Title of the Academic Program	1
2.	Name of the University	1
3.	Vision of the University	1
4.	Mission of the University	1
5.	Name of the Program Offering Entity	1
6.	Vision of the Program Offering Entity	1
7.	Mission of the Program Offering Entity	1
8.	Objectives of the Program Offering Entity	1
9.	Name of the Degree	2
10.	Description of the program	2
11.	Graduate Attributes (based on Need Assessment)	2
12.	Program Educational Objectives (PEOs)	2
13.	Program Learning Outcomes (PLOs)	2
14.	Mapping mission of the university with PEOs	3
15.	Mapping of PLOs with the PEOs	3
16.	Mapping of courses with the PLOs	3
Part B		
17.	Structure of the Curriculum	5
18.	Semester-wise Course Distribution	6
Part C		
19.	Grading/Evaluation	8
20.	Teaching Strategies	10
Part D		
21.	Description of Courses of the Program	11
Course Code	Course Title	
First Year 1st Semester		
ECO 1101	Microeconomics I	11
ECO 1102	Macroeconomics I	14
ECO 1103	Agricultural Economics	16
ECO 1104	Economic Systems: Capitalism	19
ECO 1105	Bangladesh Economy: Structure	21
First Year 2nd Semester		
ECO 1201	Mathematics for Economics I	24
ECO 1202	Statistics for Economics I	27
ECO 1203	Economic Systems: Socialism	29
ECO 1204	Fundamentals of Business: Accounting	31
ENG 1002	English Fundamentals	34
ECO 1205	Viva Voce	36
Second Year: 1st Semester		
ECO 2101	Microeconomics II	37
ECO 2102	Mathematics for Economics II	40
ECO 2103	Money and Banking	43

ECO 2104	Fundamentals of Business: Management	45
BAN 1001	History of the Emergence of Bangladesh	48
Second Year 2nd Semester		
ECO 2201	Macroeconomics II	51
ECO 2202	Statistics for Economics II	53
ECO 2203	Bangladesh Economy: Development	56
ECO 2204	Public Finance I	58
CSE 1003	Computer Fundamentals	61
ECO 2205	Viva Voce	63
Third Year 1st Semester		
ECO 3101	Microeconomics III	64
ECO 3102	Econometrics I	66
ECO 3103	International Economics I	69
ECO 3104	Public Finance II	72
ECO 3105	Health Economics	74
ECO 3106	Research Methodology	77
Third Year 2nd Semester		
ECO 3201	Macroeconomics III	80
ECO 3202	Econometrics II	82
ECO 3203	International Economics II	85
ECO 3204	Economic Development I	87
ECO 3205	History of Economic Thought	89
ECO 3206	Project Appraisal	92
ECO 3207	Viva Voce	95
Fourth Year 1st Semester		
ECO 4101	Economic Development II	96
ECO 4102	Resource and Environmental Economics I	98
ECO 4103	Labor Economics	101
ECO 4104	Urban Economics	103
ECO 4105	Computer Applications in Economics	105
ECO 4106	Microfinance Institutions and Policies	107
Fourth Year 2nd Semester		
ECO 4201	Resource and Environmental Economics II	110
ECO 4202	Financial Investment and Security Analysis	112
ECO 4203	Economic Planning	115
ECO 4204	Entrepreneurship Studies	117
ECO 4205	Fieldwork and Report Writing	120
ECO 4206	Viva Voce	121

Part A

1. Title of the Academic Program: Bachelor of Social Science (Honors) in Economics.

2. Name of the University: Varendra University

3. Vision of the University

The vision of the university is to emerge as one of the leading and premier centers of higher studies in arts, social science, science, engineering and technology. We aim at providing an education of high excellence to our young learners in a congenial and friendly atmosphere, and attracting brilliant students, distinguished scholars, researchers, scientists from home and abroad.

4. Mission of the University

The mission of the university is to:

Mission 1	contribute to national development by producing innovative, skilled, and technologically trained manpower.
Mission 2	equip students with knowledge and skill to face global challenges and become leaders of innovation in different fronts of practical life.
Mission 3	promote humanism and peace through liberal education.

5. Name of the Program Offering Entity:

a. Name of the program offering faculty: School of Arts and Social Science

b. Name of the program offering entity: Department of Economics

6. Vision of the Program Offering Entity

The vision of the Bachelor of Social Science (Honors) program is to address the challenges of all local and global economic issues through building up well-equipped academic personnel aimed at achieving academic excellence capable of fitting graduates anywhere in the world.

7. Mission of the Program Offering Entity

Mission of the Department of Economics are to:

1. produce competent graduates well-equipped with both theoretical and research based knowledge on all possible fields of economics,
2. inspire students to be innovative as well as academically sound,
3. enhance the analytical power of the students,
4. prepare graduates to face the challenges of the world economic arena,
5. utilize the advantages of globalization for achieving sustainable economic development with special focus on Bangladesh economy.

8. Objectives of the Program Offering Entity

The objectives of the Program are to:

1. instill and develop the capacity of the graduates to incorporate economic theory and practices in broad development aspects of national and international economic policies, along with sectoral analysis.

2. provide students with a broad understanding of contemporary economic issues as well as analytical skills such as problem-solving, thesis work, and presentation, in order to prepare them for employment and research in various fields.
3. built leadership qualities as well as foster ethical standards and social values into the consciousness of the students.

9. Name of the Degree: Bachelor of Social Science (Honors) in Economics

10. Description of the program

The program offers four (04) years Bachelor of Social Science (Honors) here-in-after BSS (Honors) in Economics spreading over eight (08) semesters by both coursework and research.

11. Graduate Attributes (based on Need Assessment)

Graduate attributes of Department of Economics are:

- i. Theoretical and practical knowledge of Economics
- ii. Awareness of social and economic issues
- iii. Innovation and leadership quality
- iv. Rational decision making and problem solving
- v. Organizational and entrepreneurship skills
- vi. Research and data analysis skills
- vii. Cooperation and teamwork

12. Program Educational Objectives (PEOs)

The program is intended to produce high quality graduates in economics who are intellectually and technically competent in building careers and policy making in various fields of economics in home and abroad. The educational objectives of the Program (PEOs) are to:

1. empower students with the basic and advanced knowledge of economics and development issues of global economy in general and Bangladesh economy in particular.
2. make students able to address and make better decisions regarding the issues in society and the economy.
3. cultivate the necessary skills in students to meet the needs of industry and policy makers towards availing formal employment opportunities.
4. train students for pursuing research careers that provide employment through entrepreneurship and creative activities.

13. Program Learning Outcomes (PLOs)

At the end of this program the students will be able to:

1. explore the basic concepts, propositions of classical and modern theories of Economics;
2. find out the root causes and probable solutions of national as well as regional economic problems and decision making;
3. understand mathematical and econometric methods to apprise real world economy with special focus on Bangladesh;
4. gather knowledge on sustainable development with special focus on vulnerabilities of the marginal people, impact of climate change, and optimal resource utilization;
5. handle statistical/econometric software to estimate statistical/econometric models, and results interpretation;

6. formulate research problem, design research methodology and conduct independent research;
7. improve communication skills and deliver effective presentations;
8. understand the functions of banks, financial institutions, government and non-government organizations and formulate effective policy options for them in both national and international contexts.

14. Mapping mission of the university with PEOs

PEOs	Mission 1	Mission 2	Mission 3
PEO1	✓	✓	
PEO2	✓		✓
PEO3		✓	
PEO4	✓		

15. Mapping of PLOs with the PEOs

	PEO1	PEO2	PEO3	PEO4
PLO1	✓			
PLO2		✓		
PLO3	✓			✓
PLO4	✓	✓		
PLO5			✓	✓
PLO6				✓
PLO7			✓	
PLO8			✓	

16. Mapping of courses with the PLOs

Course Title	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
Microeconomics I	✓	✓						
Macroeconomics I	✓							✓
Agricultural Economics	✓	✓						✓
Economic Systems: Capitalism	✓		✓					✓
Bangladesh Economy: Structure	✓	✓	✓					✓
Mathematics for Economics I	✓	✓						
Statistics for Economics I	✓		✓		✓			
Economic Systems: Socialism	✓	✓		✓				
Fundamentals of Business: Accounting		✓					✓	✓
English Fundamentals		✓					✓	
Viva Voce	✓	✓					✓	
Microeconomics II		✓	✓					✓

Course Title	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
Mathematics for Economics II		✓	✓					
Money and Banking	✓	✓	✓					✓
Fundamentals of Business: Management	✓		✓				✓	✓
History of the Emergence of Bangladesh	✓	✓						
Macroeconomics II	✓							✓
Statistics for Economics II			✓		✓			
Bangladesh Economy: Development	✓	✓				✓		✓
Public Finance I		✓						✓
Computer Fundamentals	✓		✓		✓		✓	
Viva Voce	✓	✓					✓	
Microeconomics III	✓	✓						
Econometrics I			✓		✓	✓		
International Economics I	✓	✓						✓
Public Finance II	✓		✓					✓
Health Economics	✓	✓	✓					✓
Research Methodology					✓	✓	✓	
Macroeconomics III	✓	✓						
Econometrics II			✓		✓	✓		
International Economics II	✓	✓	✓					✓
Economic Development I	✓	✓	✓	✓				
History of Economic Thought	✓	✓	✓					
Project Appraisal		✓		✓		✓		
Viva Voce	✓	✓					✓	
Economic Development II	✓			✓				✓
Resource and Environmental Economics I	✓			✓				
Labor Economics	✓	✓		✓				
Urban Economics				✓		✓		
Computer Applications in Economics					✓		✓	✓
Microfinance Institutions and Policies	✓	✓	✓					✓
Resource and Environmental Economics II	✓			✓				
Financial Investment and Security Analysis	✓	✓	✓					
Economic Planning			✓					✓
Entrepreneurship Studies	✓	✓					✓	✓
Fieldwork and Report Writing					✓	✓		
Viva Voce	✓	✓					✓	

Part B

17. Structure of the Curriculum

a) **Duration of the Program: Years:** 4 Years, **Semester:** 8 Semesters

There will be two semesters/academic sessions in each academic year. They are as follows:

Name of the Semester	Duration
Spring	January to June
Summer	July to December

b) Admission Requirement:

- Total GPA 5 with minimum 2.5 either in SSC or HSC/equivalent is required for admission in Honors Programs. However, a student having a minimum GPA 2.00 in SSC/HSC/equivalent with total GPA 6.00 or above may apply.
- Total GPA of 5.00 in both SSC and HSC Examinations for the children of the Freedom Fighter.
- All diploma holders from the Govt. and the UGC or related Council approved Institutions/Institutes will be considered as HSC/Equivalent, and they will have to take usual admission test for any existing programs of Varendra University.
- A student not exceeding five (05) years from the passing of his/her HSC/equivalent examinations can apply for undergraduate program.

c) **Total credit:** 140 Credits

d) **Total minimum credit requirement to complete the program:** 140 Credits

e) **Total class weeks in a semester:** Each semester will consist of 23 weeks (18 weeks for instructions or lectures, 1 week for exam preparations and, 4 weeks for midterm and final examinations).

f) **Minimum CGPA requirements for Graduation:** All required credits of the programs should be earned within the maximum length of period.

- Minimum CGPA should be 2.
- Students having 'F' grade(s) in any course(s) will not be eligible for the degree.

g) Maximum academic years of completion

A student must complete the program within 7 (seven) academic years.

h) Category of Courses:

Category	Course Title	
(i) Core Courses (23; 49%)	Microeconomics I	Mathematics for Economics I
	Microeconomics II	Mathematics for Economics II
	Microeconomics III	Statistics for Economics I
	Macroeconomics I	Statistics for Economics II

	Macroeconomics II	Public Finance I
	Macroeconomics III	Public Finance II
	Bangladesh Economy: Structure	Money and Banking
	Bangladesh Economy: Development	Economic Planning
	Econometrics I	History of Economic Thought
	Econometrics II	Economic Development I
	International Economics I	Economic Development II
	International Economics II	
(ii) Elective Courses (14; 30%)	Research Methodology	Project Appraisal
	Health Economics	Labor Economics
	Agricultural Economics	Urban Economics
	Resource and Environmental Economics I	Economic Systems: Capitalism
	Resource and Environmental Economics II	Economic Systems: Socialism
	Microfinance Institutions and Policies	Entrepreneurship Studies
	Computer Applications in Economics	Financial Investment and Security Analysis
(iii) General Education Courses (05; 11%)	English Fundamentals	Computer Fundamentals
	Fundamentals of Business: Management	History of the Emergence of Bangladesh
	Fundamentals of Business: Accounting	
(iv) Capstone Course (01; 4%)	Fieldwork and Report Writing	
(v) Oral Examination (04; 6%)	Viva Voce	

18. Semester-wise Course Distribution

First Year 1st Semester		
Course Code	Course Title	Credit
ECO 1101	Microeconomics I	3
ECO 1102	Macroeconomics I	3
ECO 1103	Agricultural Economics	3
ECO 1104	Economic Systems: Capitalism	3
ECO 1105	Bangladesh Economy: Structure	3
	Total Credit	15
First Year 2nd Semester		
ECO 1201	Mathematics for Economics I	3
ECO 1202	Statistics for Economics I	3
ECO 1203	Economic Systems: Socialism	3
ECO 1204	Fundamentals of Business: Accounting	3

ENG 1002	English Fundamentals	3
ECO 1205	Viva Voce	2
	Total Credit	17
First Year Total Credit (15+17)		32
Second Year: 1st Semester		
ECO 2101	Microeconomics II	3
ECO 2102	Mathematics for Economics II	3
ECO 2103	Money and Banking	3
ECO 2104	Fundamentals of Business: Management	3
BAN 1001	History of the Emergence of Bangladesh	3
	Total Credit	15
Second Year 2nd Semester		
ECO 2201	Macroeconomics II	3
ECO 2202	Statistics for Economics II	3
ECO 2203	Bangladesh Economy: Development	3
ECO 2204	Public Finance I	3
CSE 1003	Computer Fundamentals	3
ECO 2205	Viva Voce	2
	Total Credit	17
Second Year Total Credit (15+17)		32
Third Year 1st Semester		
ECO 3101	Microeconomics III	3
ECO 3102	Econometrics I	3
ECO 3103	International Economics I	3
ECO 3104	Public Finance II	3
ECO 3105	Health Economics	3
ECO 3106	Research Methodology	3
	Total Credit	18
Third Year 2nd Semester		
ECO 3201	Macroeconomics III	3
ECO 3202	Econometrics II	3
ECO 3203	International Economics II	3
ECO 3204	Economic Development I	3
ECO 3205	History of Economic Thought	3
ECO 3206	Project Appraisal	3
ECO 3207	Viva Voce	2
	Total Credit	20
Third Year Total Credit (18+20)		38
Fourth Year 1st Semester		
ECO 4101	Economic Development II	3
ECO 4102	Resource and Environmental Economics I	3
ECO 4103	Labor Economics	3

ECO 4104	Urban Economics	3
ECO 4105	Computer Applications in Economics	3
ECO 4106	Microfinance Institutions and Policies	3
	Total Credit	18
Fourth Year 2nd Semester		
ECO 4201	Resource and Environmental Economics II	3
ECO 4202	Financial Investment and Security Analysis	3
ECO 4203	Economic Planning	3
ECO 4204	Entrepreneurship Studies	3
ECO 4205	Fieldwork and Report Writing	6
ECO 4206	Viva Voce	2
	Total Credit	20
Fourth Year Total Credit (18+20)		38
Four Year Total Credit (32+32+38+38) = 140		

Part C

19. Grading/Evaluation

Evaluation of students' performance will be based on **Continuous Internal Evaluation (CIE)** and **Semester End Examination (SEE)**. SEE includes midterm examination and final examination whereas CIE contains class-test, quiz, attendance, presentation and assignments/case study/term paper/project/viva/group work. For Computer lab related courses evaluation will be based on attendance, Lab assessment and SEE. The distribution of marks for theory course is as follows:

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
	Total marks	100

* Students must obtain pass marks in SEE and CIE separately

i) Grading Scale and Grades

Numerical Grade	Letter Grade	Grade Point
80% and above	A+	4.00
75% to less than 80%	A	3.75
70% to less than 75%	A-	3.50
65% to less than 70%	B+	3.25
60% to less than 65%	B	3.00
55% to less than 60%	B-	2.75
50% to less than 55%	C+	2.50
45% to less than 50%	C	2.25
40% to less than 45%	D	2.00
Less than 40%	F	0.00

ii) Cumulative Grade Point Average

Student's performance will be evaluated on the basis of Grade Point Average (GPA) semester wise and Cumulative Grade Point Average (CGPA) of total completed courses.

The CGPA will be computed in the following manner:

$$\text{CGPA} = \frac{\text{Sum of (Earned Credit} \times \text{Corresponding Grade Points)}}{\text{Total Credits}}$$

iii) Retake

- a. If a student obtains F grade(s) in any courses for any reasons, s/he must retake the course(s).
- b. For retake and improvement a student can take a maximum of 12 credits or 4 courses altogether in any semester.
- c. If s/he passes after appearing at the retake examination, the (passed) result will be used for calculation of GPA and CGPA, but past grade must be recorded in the students' database; or grade report will be shown as 'R' (Retake). But in final official transcript (after completion of the degree) 'R' will not be shown.
- d. If a student obtains F grade(s) after the end of the program, s/he will get a chance to complete the course (s) within additional 2 years after the end of his/her specific time of completing the degree. But in case of fail in Pre-Requisite course(s), the student must retake the course in the succeeding semester.
- e. Except for Pre-Requisite course(s), a student can retake the course(s) at his/her convenient semester(s).
- f. A retake student will complete all course curriculums (i.e. class attendance, class test, assignment etc.) including midterm and final examinations of the specific course(s). In special cases, if the student cannot attend classes or continuous assessment (i.e., assignment, class test etc.), previous marks can be accepted to calculate GPA.
- g. If course(s) cannot be offered due to any reason (i.e., course drop or unavailability of students etc.), department can take necessary steps to arrange only midterm and final examination for the retake student(s). In such cases, other marks except midterm and final examination will be carried forward from the previous semester where s/he attended the course(s).
- h. The department may arrange separate examinations with separate questions (for midterm and final examinations only) for retake students if it cannot be accommodated in the regular examination schedule. But the examination must be completed in not more than 7 working days after the completion of midterm or final examinations.
- i. Students who want to retake a course must get his/her registration completed at the beginning of each semester.
- j. A student will have to pay requisite fee of the per credit fees for the retake course(s).
- k. Retake rules are applicable for both Undergraduate and Graduate/Masters programs.
- l. If a student retakes his/her failed course(s) after finishing normal duration of the program, s/he will pay only registration fee, exam fee and requisite fee for retake of course(s). If s/he fails to improve again, no refund of fees will be made.

iv) Improvement

- a. A student obtaining B, B-, C+, C and D grades may improve the grade(s) by appearing in the midterm and final examinations or final examination.
A student may improve above mentioned grade(s) in any semester along with regular courses. In case of improvement after passing all courses of the respective program, a student will be allowed once in the succeeding semester, but s/he has to take approval from the head/coordinator of the department
- b. For improvement and retake a student can take a maximum of 12 credits or 4 courses altogether in any semester.
- c. To prepare the improvement results, the course teachers can only modify midterm and final examination marks of the students in the result automation process. Other marks (i.e., class test, assignment etc.) will be automatically generated by the software from the previous database.
- d. A student will have to pay requisite fee of the per credit fees for the improvement of grades.
- e. If an examinee fails to improve his/her result, the previous result in the software will stand.
- f. If a student improves his/her course(s) after finishing normal duration of the program, s/he will pay only registration fee, exam fee and requisite fee for improve of course(s). If s/he fails again, no refund of fees will be made.

v) Semester Drop

- a. After getting enrolled for a semester, if any student fails to continue academic activities (i.e. class, exam, practical, assignment, presentation etc.) up to midterm examination, s/he will be considered as a semester drop student. In this case s/he will not be allowed to sit for the final exam.
- b. After getting enrolled for a semester, if any student completes all academic activities, but fails to appear at the midterm examination, the student may be allowed to sit for the final exam.
- c. Semester drop student may get readmission in the subsequent semester on payment of semester drop fee and his/her paid amount (full/partial) will be adjusted at the time of readmission. However, if any student discontinues the study forever, s/he will not get back the money paid at the time of admission.
- d. In case of semester drop or withdrawal, a student will be considered as a fresh student for the semester. S/he will get all chances for improvement, retake and re-admission like a fresh student. However, a student must complete his/her program within the time mentioned in section 7 from the time of his /her first semester admission.

20. Teaching Strategies

Typical strategies are class lectures, power-point presentation, lab work, group discussion, field visit, lecturing by expert/guest speakers, seminar, workshop etc.

Part D

21. Description of Courses of the Program

FIRST YEAR

Course Code: ECO 1101

Course Credit: 3

First Year 1st Semester

Course Title: Microeconomics I

Course Description

This is an introductory course for undergraduates of BSS (Honors) in Economics that covers the fundamentals of microeconomics. It focuses on how decision making agents within the economy (e.g. individuals, business firms, government agencies) make decisions and how decisions can be made in a way that makes the best possible use of limited resources. This course will help students to understand how the market economy functions. This course commences with an introduction to demand and supply and the basic forces that determine equilibrium in a market economy. Next, it introduces a framework for analyzing consumer and producer decisions. Finally, attention will be focused on the impact of different market structures on producers' behavior.

Course Objective

The objective of this course is to enable students to start with thinking like an economist, enhancing their abilities to make a connection between economic theory and everyday issues that all economic agents face.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. think rationally about all areas of life where choices are made;
2. understand the basic concepts of microeconomics that all economic agents make use in their decision-making processes;
3. learn consumer behavior;
4. analyze producer behavior;
5. realize different types of market structures.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1		✓						
CLO2	✓							
CLO3	✓							
CLO4	✓							
CLO5	✓							

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Exploring the Subject Matter of Economics: Wants, scarcity, competing ends and choice - defining economics, basic economic problems, microeconomics and macroeconomics, normative economics and positive economics; production possibilities model; the market systems and the circular	4	Lecture, Class discussion	Class Participation, Q/A session

	flow model.			
2	2. Demand, Supply, and Market Equilibrium: Law of demand, law of supply, market equilibrium, changes in supply, demand, and market equilibrium; government-set prices: price ceilings and price floors and their impacts on consumer surplus and producer surplus.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
2	3. Elasticity and its Application: The price elasticity of demand and its determinants; computing the price elasticity of demand: arc elasticity and point elasticity; the variety of demand curves; total revenue and the price elasticity of demand; elasticity and total revenue along a linear demand; other demand elasticities: cross price elasticity of demand and income elasticity of demand; price elasticity of supply.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
3	4. Consumer Choice and Behavioural economics: cardinal vs. ordinal utility; total and marginal utility, law of diminishing marginal utility, the solution to the diamond-water paradox, maximizing utility and the law of demand. Using Indifference Curves and Budget Lines to Understand Consumer Behavior: consumer equilibrium and demand curve derivation; Price consumption curve, income consumption curve and the Engel curve. The effect of a price change on equilibrium – the substitution and income effects for normal, inferior and Giffen goods.	4	Lecture, Class discussion	Class Participation, Q/A session
4	5. Theory of Production: Concept of production and production function; The short-run production function – total, average, marginal product curves and the law of diminishing marginal return; The long-run production function – the law of returns-to-scale, Isoquants and marginal rate of technical substitution, the isocost line and the ratio of factor prices, least-cost combination of factors of production and the producer's equilibrium, the expansion path.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
4	6. Theory of Cost and Revenue: Defining cost; Concepts of short-run and long-run costs; Fixed cost and Sunk cost, short-run	4	Lecture, Class discussion,	Class Participation, assignment

	costs– total fixed and total variable cost and total costs; average and marginal costs; Relationship between total cost, total variable cost, average total cost, average variable cost, average fixed cost and marginal cost; Area under the marginal cost curve; long run cost– the envelope curve; Concept of total, marginal and average revenue of a firm.		problem solving	
5	7. Theory of the Firm - The Perfect Competition: Four market models/structures; Perfect competition - assumptions; short-run equilibrium of the firm: total revenue and total cost approach & marginal revenue-marginal cost approach; firm and industry: equilibrium price. Long-run equilibrium– equilibrium of the firm and industry; perfect competition and efficiency.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Arnold, R. A. (2011). *Microeconomics*. South-Western, Cengage Learning.
Besanko, D., Braeutigam, RR and Gibbs, M (2011). *Microeconomics*. Wiley & Sons.
Hubbard, G., Garnett, A. M., Lewis, P., & O'Brien, A. P. (2018). *Microeconomics*. Pearson Australia.
McConnell, C. R., Brue, S. L., & Flynn, S. M. (2018). *Microeconomics: Principles, Problems and Policies*. McGraw-Hill.

Course Title: Macroeconomics I

Course Description

Macroeconomics-I has an important role in providing entry-level undergraduate students with quality education. This course helps students to understand the functioning of the whole economic system. It describes how the economy as a whole functions and how the level of national income and employment are determined on the basis of aggregate demand and aggregate supply, how to achieve the goal of economic growth, a higher GDP level, and higher level of employment. Also this course discusses stability in price level and analyses fluctuations in business activities, suggests policy measures to control inflation and deflation, unemployment etc. With a detailed knowledge of the functioning of an economy at macro level, it may be possible to formulate correct economic policies and also coordinate international economic policies.

Course Objective

This course is designed with a view to give an introduction of important determinants of macroeconomic conditions (national output, employment, and inflation), causes of business cycles, and interactions of monetary and financial markets with the real economy. Also, this course is expected to familiarize with major economic theories of relevance.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. identify the determinants of various macroeconomic aggregates such as output, unemployment, inflation, productivity and the major challenges associated with the measurement of these aggregates.
2. describe the main macroeconomic theories of short-term fluctuations and long-term growth in the economy.
3. critically evaluate the consequences of basic macroeconomic policy options under differing economic conditions within a business cycle.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3								✓

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Understanding macroeconomics: Macroeconomic issues and ideas; objectives, policy targets, instruments, goals and the role of government; the Great Depression; Keynes and the birth of macroeconomics; the macro economy and macroeconomic policies, the economic problem, government and the	4	Lecture, Class discussion	Class Participation, Q/A session

	economy.			
1,2	2. The measurement of economic activity: National income accounting methods, adjustment to national income statistics, problems in measuring economic activity, use of national income statistics, factors influencing the size of national income, real versus nominal values, other indicators of economic activity.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
2,3	3. Modelling the economy- the circular flow of income: Sectors of the economy, the circular flow of income model, the concept of equilibrium, leakages and injections, the circular flow of income and aggregate demand, the concept of disequilibrium.	4	Lecture, Class discussion	Class Participation, Q/A session
Mid-term Written Examination: Chapter 1, 2, 3				
2,3	4. The determination of economic activity: The meaning of equilibrium national income, components of aggregate planned expenditure, determination of equilibrium national income, deflationary and inflationary gaps, concepts of MPC, MPS, APC, APS, MEC, MEI, multiplier effects, the accelerator principle.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
2,3	5. Aggregate demand and supply: Aggregate demand, changes in aggregate demand, aggregate supply, aggregate supply in the long run, aggregate supply in the short run, macroeconomic equilibrium.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
2,3	6. Unemployment: Measuring unemployment, impact of unemployment, economic impact, social impact, Okun's law, economic interpretation of unemployment, equilibrium unemployment, disequilibrium unemployment, duration of unemployment, and sources of joblessness.	4	Lecture, group discussion	Class Participation, presentation
2,3	7. Inflation: Measurement of inflation, causes of inflation, consequences of inflation, the relationship between	4	Lecture, Class discussion	Class Participation, Q/A session

	inflation and unemployment, policy implications of inflation, deflation.			
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Dornbusch R. and S. Fischer, (2000) *Macroeconomics*, 7th edition, McGraw-Hill.
 Nellis, J.G. and Parker, D. (2004). *Principles of Macroeconomics*, Prentice Hall.
 Mankiw, G. (2010). *Principles of Macroeconomics*, McGraw Hill.
 Samuelson, P.A. and Nordhaus, W.D. (2010) *Economics*, McGraw-Hill.

Course Code: ECO 1103

Course Credit: 3

First Year 1st Semester

Course Title: Agricultural Economics

Course Description

Agriculture is the mainstay of developing countries' economy and agricultural development is regarded as the first stage of development of an economy. Agricultural economics as an empirical field of economics has been developed as a separate discipline since late 19th century. The economics of production, resource access, utilisation, distribution of food and fibre has significant role in analysing economic development of both developed and developing countries. This course will discuss the economics of agriculture, production, farming, optimal input and output selection, marketing, and agricultural trade including some country experience with relevant policy issues.

Course Objectives

The objective of this course is to introduce students to agricultural economics and to the importance of agriculture in economic development. This course also aims at providing students a general understanding of agricultural production economics, marketing, and trade strategies.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to-

1. understand the relation and importance of agriculture in economic development;
2. analyse farm level decision making in optimal input selection and output production process;
3. develop skills in critical thinking for suitable agricultural marketing and trade policy.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3								✓

Course Content:

CLOs Mapping	Chapter	No. of lectures	Lecture, Group discussion	Class Participation, Q/A session
1,2	1. Introduction to agricultural economics: Concept of agricultural economics, nature of agricultural economics, scope of agricultural economics, types of agricultural economics, importance of agriculture in national economy, special features of demand and supply in agriculture.	4	Lecture, Class discussion	Class Participation, Short Question
1,2	2. Contribution of agriculture: Contribution of agriculture in the economy- market contribution, factor contribution, capital contribution, labour contribution, provision of industrial raw materials; agricultural fundamentalism, declining importance of agriculture, supplier of substantial food and fodder, agriculture as a source of livelihood, agriculture and provision of employment, agricultural and industrial development, agriculture and international trade.	4	Lecture, Class discussion, Slide Presentation	Class Participation, class test, assignment
1,2,3	3. The economics of production: The production function, length of time: immediate run, short run, and long run, physical production relationships, the law of diminishing marginal returns, the three stages of production, profit maximization, optimal input selection, and optimal output selection in agriculture.	4	Lecture, Group discussion	Class Participation, Q/A session
Mid-term Written Examination: Chapter 1, 2, 3				
1,2,3	4. Types of farming and land tenure: Classification of farms, farming as an occupation, specialized versus diversified	4	Lecture, Class discussion	Class Participation, Q/A session

	farming, problems of selection, valuing the farm, type of land tenure–owner operator, part operator; tenant; share tenancy; meaning of land reform; objectives; benefits and costs; limitations; agrarian and tenancy reform.		in group	
2,3	5. Agricultural Finance: Sources of agricultural capital and credit, function of rural money markets in Least Developed Countries (LDCs), financial policies for agricultural development.	4	Lecture, Class discussion	Class Participation, Quiz/class test
1,2	6. Agricultural marketing and pricing policy: Significance of agricultural marketing, special problems in marketing, marketing functions, marketing costs, margins and efficiency, market intelligence and grading, market integration, imperfections of agricultural marketing in LDCs, marketing reform.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
1,2	7. Agricultural development, foreign trade and Government’s role: Crops for commercial purposes, methods of agricultural price support–deficiency payments system; import quotas, tariff protection; price subsidies; variable levies; domestic supply restrictions; price discrimination, adjustment and agricultural policies, GATT and agriculture.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Barkley, A., & Barkley, P. W. (2013). *Principles of agricultural economics*. Routledge.
- Chauhan, D S (1953), *Agricultural Economics*. Agra, The Modern Press
- Desai, P K (2010). *Agricultural Economics*. India, Biotech Books.
- Ghatak, S and Ingersent, K. A (1984), *Agriculture and Economic Development*. Johns Hopkins University Press.
- Hill, D.E and Ingersent, K. A (1977), *Economic Analysis of Agriculture*. UK, Heinemann Educational Books.

Course Code: ECO 1104

Course Credit: 3

First Year 1st Semester

Course Title: Economic Systems: Capitalism

Course description

An economic system encompasses the framework of production, trade & exchange and distribution of goods and services in an economy. Comparing economic systems would therefore allow students to compare and contrast different economic systems. This course ‘Economic Systems: Capitalism’ introduces the history of capitalism and its development including some country experiences. History of capitalism actually can be traced back to the first Industrial Revolution in 18th century which acknowledged significant contribution of classical economists. This course is a prerequisite in understanding the country level development pattern by analyzing historical development stages and policies including the example of welfare states aiming to protect and promote economic and social well-being of their citizens.

Course Objectives

The overall objective of this course is to provide students a brief outline of the historical development of capital and capitalist economic system including early and new industrialization.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. understand the history of capitalist development in early industrialized countries’ context, students will understand how capital evolved and functioning of a capitalist economic system developed;
2. learn the policies of newly industrialized countries, students will be able to compare and contrast between early and new industrial revolution and pathways towards economic development;
3. realize theoretical underpinning in the making of a capitalist economic system and policies in welfare states which will help students make logical connection with practical knowledge.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2			✓					✓
CLO3								

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Concepts of Capitalism: Definition and meaning of capitalism; factors leading to the break-up of feudalism and transition to capitalism; classical theory of capitalist development-invisible hand; laissez faire, free trade, stationary state.	4	Lecture, Group discussion	Class Participation, Q/A session
1,2	2. Growth of Capitalism: Free market economy; colonial capitalism and its impeding effects on peripheral capitalist development stages of development of capitalism, commodity production and money in capitalism.	4	Lecture, Class discussion	Class Participation, Quiz
1,2	3. Economy of the U.K--The Pre Capitalist Period: Medieval economic organizations- the manorial system; mercantilism—rise of merchant capital, Agricultural Revolution of the 16th and 18th century in U.K.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,2	4. Industrial Revolution: Rise of industrial capital—industrial revolution; laissez faire, rise and decline of free trade and ascendancy in world trade.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2,3	5. Capitalistic development model-USA: Characteristics of American economy during pre-independence period. American civil war—causes and impacts; American industrial revolution— comparison with British industrial revolution; Great depression —causes and effects, New deal.	4	Lecture, Class discussion	Class Participation, Quiz/class test
1,2,3	6. Capitalistic development model-Japan: Break down of Tokugawa, Zaibatsu and Meiji restoration, Process of agricultural development and industrial growth of Japan, Role of Small-Scale Industrial Development, role of state in the economic development, the growth of foreign trade.	4	Lecture, Class and group discussion	Class Participation, assignment

Course Objectives

The major objectives of this course are to explore the present structure of Bangladesh economy, demonstrate previous trends and forecast future prospect of indicators of economic growth and development.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. gain knowledge about the structure of Bangladesh economy and compare economic sub-sector wise contribution to overall growth in Bangladesh economy;
2. analyze and demonstrate the pattern, size, composition and distribution of economic variables using aggregate data;
3. differentiate and compare important characteristics of economic indicators;
4. recognize the economic sectors that are running sluggishly and explain recovery measures;
5. forecast future prospect of growth of different economic indicators.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3	✓							
CLO4			✓					✓
CLO5								

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2,5	1. Economy, Environment and Population: Historical perspective of Bangladesh economy; climate and environmental issues and their impacts on Bangladesh economy, size and composition of the population; density and regional distribution of population; the size and occupational distribution of the labour force in Bangladesh, magnitude of poverty and its trends in Bangladesh.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2,3	2. National Income and its Composition: Size and composition of GDP and GNP of Bangladesh; trends of GNP and per capita GNP; overall growth trends; sectoral contributions to the GDP and patterns of structural changes; pattern of income distribution and income inequality.	4	Lecture, Class discussion, Data presentation	Class Participation, Quiz

1,2,4	3. Agriculture Sector: Agriculture's role in the economy; major food and non-food crops: livestock; fisheries and forest resources; volume of production, growth food crops, and availability of food in Bangladesh; food security; HYV technology problems and prospects of agriculture in Bangladesh.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,2,4	4. Industrial Sector: Size and composition of the industrial sector; types of industries: cottage; small and large scale industries; their relative efficiency; public and private sector industries; Export Processing Zones (EPZs), special economic zones (SEZs) and industrialization; problems of industrialization.	4	Lecture, Class discussion, Industrial Visit	Class Participation, Q/A session
1,2,5	5. Foreign Trade, Aid and FDI: Volume, composition and direction of foreign trade; export and import trends; the balance of trade and the balance of payments; importance and trends of foreign aid and FDI in Bangladesh; problems and prospects with the external sector.	4	Lecture, Group discussion	Class Participation, Quiz/class test
1,2,4,5	6. Economic Infrastructure and Economic Institutions: Transport and communication; power and energy; education and housing, structure of banking sector and function of banks; role of banking sector in economic development; concept of microcredit; impact of microcredit on economic development; microcredit providing organizations- NGOs, PKSF, etc.	4	Lecture, Class discussion, Example survey	Class Participation, presentation
1,2,4,5	7. Public Finance: Government budget; revenue and capital budgets; the process of budget preparation in Bangladesh; public borrowing and debt servicing; analysis of current year's budget; development experiences: the five year plans; PRSP, MDG and SDGs .	4	Lecture, Group discussion	Class Participation, Quiz/class test
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Faaland, J and Perkinson, J R. (1977), *Bangladesh- A Test Case of Development*, London. C. Hurst and Company.

BIDS (2004). *Economic Reform and Trade Performance in South Asia*. Research Monograph, Bangladesh Institute of Development Studies, Dhaka, University Press Ltd.

Hossain M. Musharraf (1991). *Agriculture in Bangladesh: Performance, Problems and Prospects*, Dhaka, University Press Ltd.

Sinha, N K. (1961): *Economic History of Bengal (vol 1-3)*, Calcutta.

GOB (Various Years). *Bangladesh Economic Review*. Ministry of Finance, Government of Bangladesh, Dhaka.

GOB (Various Years). *Five year Plans of Bangladesh*. Ministry of Planning, Government of Bangladesh, Dhaka.

Course Code: ECO 1201

Course Credit: 3

First Year 2nd Semester

Course Title: Mathematics for Economics I

Course description

Mathematics for economics-I is an essential course for undergraduate students of economics. It can be used to analyze economic theory mathematically which is more accurate than descriptive economics. It also enhances the knowledge and skills of mathematics for mathematical economics. The course includes- the nature of mathematical economics, economic models, equilibrium analysis, basic algebra, rules of differentiation and their use in comparative statics, application of derivatives, linear models and matrix algebra. The course is designed for students how to use and apply mathematics in economics with real examples and exercises. It helps to prepare students for more advanced quantitative modules in consecutive stages of mathematics.

Course Objectives

The core objective of this course is to improve mathematical knowledge and skills and apply mathematics in real world economics. This course will help students by providing knowledge in essential mathematical tools and methods in economic applications.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. learn law of indices and law of logarithm;
2. identify demand and supply functions, different types of curves related with economics;
3. understand application of parabola and rectangular hyperbola in economics;

4. calculate elasticity of demand and supply;
5. apply derivatives in economics;
6. use matrix and determinants to solve market and national income model, and input-output model.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3	✓							
CLO4	✓							
CLO5		✓						
CLO6		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Introduction: Mathematical versus non-mathematical economics; some basic concepts; number system; ingredients of a mathematical model-variables, constants, parameters, equations and identities; inequalities.	4	Lecture, Group discussion	Class Participation, Q/A session
1,2	2. Functions and Graphs: Concept of function; its classification and types; the graphs of functions linear, quadratic and cubic functions; exponential and logarithmic functions and their properties;	4	Lecture, Class discussion, Exercise	Class Participation, Quiz
3	3. Elementary Analytical Geometry: Distance between two points; the gradient of a straight-line equations of straight lines; parabola and rectangular hyperbola; economic problems in analytical geometry.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1, 2	4. Static Analysis: The meaning of equilibrium, market equilibrium and its solutions; linear and non-linear models; effects of tax and subsidy on equilibrium; equilibrium in National Income analysis.	4	Lecture, Class discussion, Exercise	Class Participation, Q/A session
5	5. Limit and Differentiation: Definition of derivatives; rules of differentiation; differentiation of exponential and logarithmic functions, second and higher order derivatives; partial derivatives and total differential.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
5	6. Application of Derivatives: Slope of functions; increasing and decreasing	4	Lecture, Class	Class Participation,

	functions; concavity and convexity of functions; elasticities; maxima, minima and point of inflection; marginal functions; profit maximization under perfect competition; monopoly and discriminating monopoly; cost functions and supply functions; derivation of supply function from cost function.		discussion, problem solving	assignment
6	7. Matrix Algebra: Concept of vectors and matrices; different types of matrices-transpose of a matrix; addition, subtraction and multiplication of matrices-laws of addition and multiplication; determinant of a square matrix; matrix inversion.	4	Lecture, Class discussion, Problem Solving	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Allen, R G D (1938), *Mathematical Analysis for Economists*, McMillan, London.

Dowling Edward, (2003), *Schaum's Outline of Theory and Problems of Introduction to Mathematical Economics*, Third Edition, New York: McGraw-Hill Irwin.

Chiang, A C (2005), *Fundamental Methods of Mathematical Economics*, Fourth Edition, New York: McGraw-Hill Irwin.

Hoy M., John Livernois, Chris McKenna, Ray Rees and Thanasis Stengos (2011), *Mathematics for Economics*, 3rd Edition, The MIT Press.

Mckenna, C J and Rees, R (1996), *Economics: A Mathematical Introduction*, Oxford University Press, USA.

Course Title: Statistics for Economics I

Course description

As an imperial social science, economics increasingly depends on quantitative analysis/statistics as a method of studying social and economic phenomena. The use of some simple but useful descriptive statistics and other basic statistical analyses is very essential to all economic agents in the current information-based world. In this backdrop, statistics gives a pathway for summarizing and describing data, sampling public opinion, testing the significance of responses from surveys, assessing the relationships among variables and making economic forecasts that have become an integral part of modern-day economy. This course will provide students with an introduction to some basic topic of statistics with special reference to economics.

Course Objectives

The prime objective of this course is to make students familiar with basic statistical theory/methods and reasoning with their real-world applications.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. identify the subject matter of statistics and notation within the scope of this course;
2. understand the basic concepts and statistical tools that are relevant for this course;
3. analyze real world data within the scope of this course;
4. compute different statistics;
5. interpret derived statistical results.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3			✓					
CLO4			✓					
CLO5					✓			

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction: Statistics; Inductive and Descriptive Statistics; Uses and Importance of Statistics; Limitations of Statistics. Scientific Notation; Subscript Notation; Summation Notation.	4	Lecture, Class discussion, problem solving	Class Participation, Q/A session
3	2. Data: Population and Sample; Sources of Data; Variable and Attribute; Presenting Data – Bar Diagram, Pie Diagram, Histogram, Line Graph and Scatter Diagram; Use of Computer in Presenting Data.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz

4,5	3. Frequency Distribution: Raw Data; Grouped and Ungrouped Data; Frequency Distributions; Class Intervals and Class Limits; Class Boundaries; The size of a Class Interval; The Class Mark; General Rules for Forming Frequency Distribution; Cumulative Frequency Distribution and Ogives.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
4,5	4. Measures of Central Tendency: Definition of central tendency; The Arithmetic Mean; The Geometric Mean (GM); The Harmonic Mean (HM), The Median, The Mode, Quartiles and Percentiles, use of the measures of central tendency.	4	Lecture, Class discussion, problem solving	Class Participation, Q/A session
4,5	5. Measures of Dispersion: Definition of dispersion; The Range; The Mean Deviation; The Semi-Interquartile Range; The Variance; The Standard Deviation – Properties of Standard Deviation; Coefficient of Variation; Standardized Variable – Z Scores.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
4,5	6. Characteristics of a Distribution: Moments, Shape Characteristics of a Distribution; Variation and Skewness; Measures of Skewness; Kurtosis; Measures of Kurtosis	4	Lecture, Class discussion, problem solving	Class Participation, assignment
2,4	7. Index Number: Types of index number- price, value and quantity indices, Fisher's ideal index, cost of living index, purpose and use of index number	4	Lecture, group discussion, problem solving	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- David R Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran (2018) *Essentials of Statistics for Business & Economics*, Eighth Edition, Cengage Learning, Boston, USA
- Ron C. Mittelhammer (2013) *Mathematical Statistics for Economics and Business*, 2nd Edition, Springer, New York, USA
- S. P. Gupta and M. P. Gupta (2008) *Business Statistics*, Sultan Chand & Sons, New Delhi, India
- Murray R. Spiegel and Larry J. Stephens (2008) *Theory and Problems of Statistics*, Fourth Edition, McGraw Hill, USA
- M. Nurul Islam (2011) *An Introduction to Statistics and Probability*, Fourth Edition, Mullik & Brothers, Dhaka, Bangladesh
- Mostafa, M. G. (1989) *Methods of Statistics*, Karim Press and Publication, Dhaka.

Course Code: ECO 1203

Course Credit: 3

First Year 2nd Semester

Course Title: Economic Systems: Socialism

Course Description

Marxist criticism of capitalist economic system has been a revolutionary heterodox approach to bourgeoisie political economy. Policy experience of USSR and China bears the significance of long-term planning in economic policy making even in welfare states. Also, 20th century neo-Marxists devoted largely to analyzing social inequality and conflicting interests between classes, resource exploitation in the context of existing global food and environmental politics. This course, ‘Economic Systems: Socialism’ gives a theoretical foundation of Marxist theories and critical analysis of modern capitalism.

Course Objectives

The overall objective of this course is to provide students a brief outline of Marxian critical analysis of capitalist development, Marxian political economy and contemporary neo Marxist approach to agrarian political economy.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. analyse capitalist economic system from critical perspective and the significance of socialist economic system as an alternative approach to economic development;
2. explore contemporary process of agrarian and environmental changes, resource access and crisis of neo-colonialism;
3. evaluate and relate economic, ecological and cultural imperialism between countries.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2				✓				
CLO3		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Political economy & modes of production: Different modes of productions under Slavery, Feudalism, Capitalism and Socialism, Asiatic mode of production, pre-capitalist mode of production and its continuous distribution and renewal. peasant economy-power, authority and stratification of peasant economy.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Capitalist Process of Development: Theory of surplus value and the capitalist exploitation of labour, General law of capital accumulation; the law of falling tendency of the rate of profit, Reproduction of social capital; Economic crisis; Imperialism; Development of state monopoly capitalism; Transition period.	4	Lecture, Class discussion	Class Participation, Quiz
1,2	3. Economic Laws of Socialism: Rise, establishment and stages of development of socialism; Social ownership of the means of production, character of labor and the basic economic law of socialism; Planned development of socialist economy and role of socialist state; Commodity-money relations under socialism; Process of socialist production; Distribution according to work; Social consumption funds.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,2,3	4. Socialist development model- USSR: War Communism and new economic policy, role of planning in economic development, soviet strategy of industrialization and lessons for other countries, Soviet development plans, breakup of the USSR.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2,3	5. Socialist development model- China: The economy of china in the post socialist revolution period, commune system and rural economy, Modernizations of Chinese economy in eighties and nineties.	4	Lecture, Class discussion	Class Participation, Quiz/class test

1,2	6. Neo-Marxism: Political economy and political ecology, Corporate-led commodity production, World systems theory, Contemporary agrarian crisis, Urban-bias theory, Global food and environmental politics.	4	Lecture, Class discussion	Class Participation, assignment
1,3	7. Socialist Development Model- Cuba: The Great Debate 1963-65, Socialism, Human Development and the Cuban Revolution, The Colonial Economic Model.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Khorzov, S. E., Koptev, M. M., Korolev, S. A., Koryagin, A. G., Kozlov, G. A., Kukhayev, P. T., .. & Ryndina, M. N. (1977). Political Economy: Socialism. Moscow: Progress.
- Kozlov, G. A. (Ed.). (1977). Political economy: capitalism (Vol. 1). Progress Publishers.
- Louis A. Pérez, Jr. (2006), Chapter 2 (“Colony and Society”) and Chapter 3 (“Out from the Shadows,” Cuba Between Reform and Revolution, 3rd. edition (New York: Oxford University Press), pp. 15-53.
- Nikitin, P. (Petr) (1963). Fundamentals of political economy, Moscow: Foreign Languages Publishing House.

Course Code: ECO 1204

Course Credit: 3

First Year 2nd Semester

Course Title: Fundamentals of Business: Accounting

Course Description

This course includes basic concepts of accounting for providing fundamental knowledge about business. Major topics in this course are characteristics of accounting, accounting system, accounting cycle, financial statements, cost concepts and classification, cost-volume-profit relationship, planning, organization, and leadership aspects. The emphasis is placed on the procedural aspects of conceptual accounting for business analytics with example of problem solving in real companies. The achievement of these skills will make it possible to show a strong command of terminology and fundamental concepts of financial accounting.

Course Objectives

The objectives of this course are to make students familiar with basic concepts of financial accounting in business analysis. The course will help students to develop skills in applying financial accounting principles to record business transactions, prepare financial statements, and provide students basic financial statement analysis tools and techniques.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. recognize commonly used financial statements, their components and how information from business transactions flows into these statements;
2. demonstrate knowledge of preparation of financial statements in accordance with Generally Accepted Accounting Principles through analysis and synthesis of information as well;
3. learn relevant managerial accounting skills, applying both quantitative and qualitative knowledge to their future careers in business;
4. develop basic financial accounting skills for solving business problems (individually and collaboratively), planning, decision-making, and communication in modern business settings.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1								✓
CLO2								✓
CLO3		✓						
CLO4							✓	

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction: Meaning of Accounting, Nature and purpose of Accounting, users and uses of Accounting information, Accounting concepts and conventions, Qualitative characteristics of Accounting, Conceptual framework; Accounting information system, principle of accounting information system, developing and accounting system, manual vs computerized systems.	4	Lecture, Class discussion	Class Participation, Q/A session
2,3	2. Accounting Cycle: Double entry accounting system, accounting equation, steps of accounting cycle, recording of transactions, posting to the ledger, preparation of trial balance, Journalize and post adjusting entries, prepare an adjusted trial balance, closing entries, reserving entries, preparation of work sheet.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
2,3,4	3. Financial Statement Reporting and Analysis: preparation and presentation of	4	Lecture, Class discussion,	Class Participation, class test,

	financial statements- income statement, changes in equity, cash flow statement and balance sheet: Accounting profit vs economic profits, Tools of financial statement analysis, horizontal and vertical analysis, ratio analysis, liquidity ratio, profitability ratio, solvency ratio and decision making.		problem solving	assignment
Mid-term Written Examination: Chapter 1, 2, 3				
3,4	4. Financial Analysis: The Big Picture: Basics of financial statement analysis, need for comparative analysis, tools of analysis, Ratio analysis: liquidity ratios, profitability ratios, solvency ratios.	4	Lecture, Class discussion, problem solving	Class Participation, Q/A session
4, 5	5. Cost-Volume-Profit Relationship: Profit planning, break-even point chart, changes in underlying factors, profit volume graph, income tax break even point, break-even point in decision making; risk and profit analysis.	4	Lecture, Class discussion	Class Participation, Quiz/class test
4,5	6. Budgetary Planning: Budgeting, budgeting and accounting, the benefits of budgeting, effective budgeting, the essentials of effective budgeting, the master budget, budgeting in non-manufacturing companies.	4	Lecture, Class discussion	Class Participation, assignment
Final Written Examination: Chapter 4, 5 and 6				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Waygandt J.J, Kieso P.D, Kimmel D.E (2015). *Accounting Principles*, New York, Wiley.
Roser H. Hermenson H (1989). *Accounting Principles*.New York, Richard Irwin.
Uddin. M. H (2008) *Basic Accounting*. Dhaka, Angel Publications.
Harold Koontz and c.o Donnefl (1972). *Management*. Wisconsin, McGrawhill.
Griffin R. W (2002) *Management*. Boston, Houghton Mifflin Harcourt Publishing Company.
Islam M and Khan A. (2010). *Principles of Management*. Dhaka, Mania Art Press.

Course Title: English Fundamentals

Course Description

This course covers the basics of the English language, aiming at improving the linguistic, sociolinguistic, discourse and strategic competence of the students. The course is designed to strengthen students' basic communication skills, including grammar, spelling, punctuation, and sentence construction. Emphasis is placed on the writing of well-structured paragraphs and short essays. Emphasis is also given to increase students' ability to read textbooks written in English.

Course Objective

The primary objective of this course is to enable students to understand English in the academic context, read texts written in simple English, give presentations fluently in English on any given topic, and develop their writing abilities which will help them to express their views and ideas clearly as well as logically.

Course Learning Outcomes: Upon successful completion of this course, the students should be able to-

1. understand reading passages easily;
2. self-edit and correct grammar, spelling and punctuation errors in their essays;
3. produce a well-structured essay;
4. identify and correct basic errors in grammar;
5. compose coherent paragraphs, supporting central ideas with specific details;
6. differentiate fact from opinion;
7. identify and paraphrase the main ideas and summarize a text objectively supporting points in reading;
8. generalize meaning by recognizing and interpreting inferences and deduce the meaning of vocabulary through contextual clues in readings.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1							✓	
CLO2							✓	
CLO3							✓	
CLO4		✓						
CLO5							✓	
CLO6		✓						
CLO7							✓	
CLO8							✓	

Course Content:

• Parts of speech	• Types of phrases	• Types of
• Verb and Phrasal verb	• Preposition and Conjunction	• Transitional
• Subject-verb agreement	• Tense	• Voice
• Making Question	• Reading Comprehension	• Paragraph
• Essay writing Techniques	• Resume Writing	• Cover
• Email Writing	• Précis Writing	• Report
• Common spoken discourse in formal and informal context		

Assessment and Evaluation

Grades will be calculated as per the university grading structure and the individual student will be evaluated based on the following assessment criteria with respective weights.

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Recommended Reading:

- Baker, S. (1990). *The Practical Stylist* (7th ed.). Harpercollins College Div.
- Barnet, S., Stubbs, M., Bellanca, P., & Stimpson, P. G. (2002). *Practical Guide to Writing with Readings and Handbook* (8 ed.). Prentice Hall Canada.
- Eastwood, J. (2009). *Oxford Practice Grammar Intermediate* (Pap/Cdr ed.). Oxford University Press.
- Hewings, M. (2013). *Advanced Grammar in Use* (3rd ed.). Cambridge University Press.
- Hewings, M. (2013). *Advanced Grammar in Use* (3rd ed.). Cambridge University Press.
- Imhoof, M., & Hudson, H. (1975). *From Paragraph to Essay: Developing Composition Writing* (7th ed.). Longman.
- Imhoof, M., & Hudson, H. (1985). *From Paragraph to Essay: Developing Composition Writing*. Longman.
- J Glover, A. (1957). *Build Up Your English*. J. M. Dent and Sons Ltd.
- Lea, D., Hornby, A. S., & Bradbery, J. (2020). *Oxford Advanced Learner's Dictionary*. Oxford University Press.
- Leech, G., & Svartvik, J. (2003). *A Communicative Grammar of English* (3rd ed.). Routledge.
- Murphy, R. (2019). *English Grammar in Use Book* (5th ed.). Cambridge University Press.
- Phillips, D. (2014). *Longman Preparation Course for the TOEFL iBT Test with Answer Key* (3rd ed.). Pearson.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1972). *A Grammar of Contemporary English*. Addison-Wesley Longman Ltd

Course Title: Viva Voce

Course Description

The viva voce examination will be held at the end of 2nd semester (1st year; 2nd semester) based on the theoretical knowledge, skills and the practices which the students have undergone in the period of one year. It is based on all the courses the students have studied in 1st year, the social and economic conditions of the country as well as the world.

Course Objectives

Objectives of this course are:

1. To acquire knowledge and abilities to face the interview board.
2. To equip the students with analytical abilities to respond the queries by the interview board.
3. To prepare the students to present the knowledge and problem solving abilities effectively.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. demonstrate the acquired knowledge of basic concepts and theories of microeconomics and macroeconomics as well as Bangladesh Economy;
2. differentiate theoretical knowledge with realities and make better decisions;
4. make better communication and explanation of different topics learnt before.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3							✓	

Assessment/Evaluation

	Marks
Attendance	10
Viva	90
Total marks	100

Reading materials:

Books/study materials of all the courses of 1st year (1st and 2nd semesters).

SECOND YEAR

Course Code: ECO 2101

Course Credit: 3

Second Year 1st Semester

Course Title: Microeconomics II

Course Description

The course focuses on the theoretical and applied insights of Microeconomics. As undergraduate students, the learners must have clear concept of the rigor of Microeconomic issues. This course focuses on in-depth discussion on the theories and applications of Microeconomic issues at the individual consumer and firm level. It explores the dynamics that consumer faces in optimizing her utility as well as it analyzes firm's optimizing behavior issues in a non-ideal world characterized with complex and diverse preferences and choices. It further digs at inefficiencies in market outcome and policy options for the government to enhance market efficiency and the welfare of the society. The course aims at enabling students to enhance their analytical capability regarding consumer theory and firm practices.

Course Objective

The main objective of this course is to make students familiar with a more thorough understanding of the core concepts and methods of microeconomics.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to-

1. learn about the dynamics of preferences and choices at the individual level;
2. acquire knowledge about diverse socio-psychological issues that shapes consumers' and households' economic decisions;
3. understand the theories of firm behaviour and their application in the society;
4. gain knowledge about the causes and consequences of inefficiency in the society and policy strategies to solve such problems.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1		✓						
CLO2			✓					
CLO3			✓					
CLO4								✓

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Consumer Theory- Axioms on Consumer's Preferences: Cardinal utility and its underlying axioms; Ordinal utility and its underlying axioms; Existence of utility function; Derivation of ordinary and compensated demand functions and their properties; Slutsky versus Hicksian compensation; Behavioral	4	Lecture, Class discussion	Class Participation, Q/A session

	approach - the theory of revealed preference, its axioms and consumer's decision making; Comparison of the axioms of Cardinal, ordinal and the behavioral approaches.			
1,2	2. Consumer Theory- The Law of Demand: The Slutsky equation and its interpretation, slopes the compensated and the ordinary demand curves; Revealed preference, (quasi-) substitution effect and the law of demand; The Slutsky equation and its interpretation for two goods - Gross versus net substitutes and complements;.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
3	3. Production Function: Homogeneous and homothetic production functions; Isoquants, MRTS and elasticity of substitution; Isoquants for homogeneous and non-homogeneous production functions; least cost combination of factors; Expansion path; Cobb-Douglas (C-D) production function; CES production function; L' Hopital's rule.	4	Class Participation, presentation	Lecture, group discussion
Mid-term Written Examination: Chapter 1, 2, 3				
3, 4	4. Efficiency of Perfect Competition and Applied Competitive Analysis: Idea of compensating and equivalent variations; Computations of welfare change by consumer's and producer's surplus; Computations of welfare loss for quantity restriction, price controls, tax incidence and transaction costs; Deadweight losses from tax and tariffs; Efficiency of Perfect competition.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
3, 4	5. Monopoly: Definition; where do monopolies come from? demand and revenue curves of monopolist; equilibrium of the monopolist–short-run and long-run equilibrium;	4	Lecture, group discussion	Class Participation, presentation

	technical, legal and created barriers to entry in monopoly, Welfare loss and distortion in resource allocation; Monopoly and price discrimination- first, second and third-degree; Discrimination through price schedules- two-part tariff; Regulation of monopolies.			
3, 4	6. Monopolistic Competition: Nature and assumptions of monopolistically competitive firm; Product differentiation and the demand curve; Advertisement cost and the cost curve; Equilibrium of firm- with (a) free entry, (b) price competition, (c) free entry and price competition; The perfectly contestable market; Comparison of monopolistic competition with pure competition - its desirability.	4	Lecture, Class discussion	Class Participation, Q/A session
3, 4	7. Oligopoly: Non-collusive oligopoly- Cournot model and the construction of reaction curves, Price competition and the Bertrand's duopoly model, Sweezy's kinked-demand model, Stackelberg's price-leadership model; Collusive oligopoly- Cartels and joint profit maximization, Incentive to cheat and co-ordination cost; Price leadership model- price leadership by a low cost firm and a dominant firm.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Henderson, J M and Quandt, R E (2003) *Microeconomic Theory: A Mathematical Approach*, Tata McGraw-Hill
- Koutsoyannis, A (1979), *Modern Microeconomics*, Macmillan.
- Varian, H. R (1999) *Intermediate Microeconomics*, W. W. Norton & Company
- Chiang, A C (1984), *Fundamental Methods of Mathematical Economics*, McGraw-Hill.
- Green, H A J (1976), *Consumer Theory*, Penguin Books
- Hoy, M., J. Livernois, C. McKenna, R. Rees, T. Stengos (2001), *Mathematics for Economics*, The MIT Press.
- Mankiw N Gregory (1991) *Principles of Microeconomics*, 6th Edition.
- Salvatore Dominick (2003), *Microeconomics: Theory and Applications*, 4th edition, Oxford University Press.
- Samuelson Paul A. and William D. Nordhaus (2001), *Economics*, 17th edition, McGraw-Hill/Irwin.
- Varian, H. R (1992) *Microeconomic Analysis*, W. W. Norton & Company

Course Code: ECO 2102

Course Credit: 3

Second Year 1st Semester

Course Title: Mathematics for Economics II

Course Description

The course Mathematics for Economics-II is an essential course for the undergraduate students of economics. It is needed for the students of economics discipline to enhance skills and knowledge for implementation of the mathematical knowledge and expertise to the theories and problems of economics. The course covers the concepts of set theory, progression/series, integral calculus, foundation of matrix and linear algebra, exponential and logarithmic functions, differential and difference equations and optimal control theory. The course helps undergraduate students to use and apply mathematics in economics with real examples and exercises. The course is designed to prepare students for more advance quantitative modules in 3rd and 4th year levels. It also complements the learning of several courses of 2nd, 3rd and 4th years such as microeconomics, macroeconomics, resource and environmental economics, and energy economics.

Course Objective

The central aim of this course is to provide an insight into the importance of mathematical methods in economics, introduce students with different mathematical tools and make them able to use these tools in solving different problems and acquire the students' knowledge in the field of mathematics and to make them ready to analyze real economic situations.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. use appropriate techniques to solve problems with set theory, progression, integral calculus, matrix and linear algebra, exponential and logarithmic functions, difference and differential equations and optimal control theory;
2. understand the application of integral calculus in finding total function from marginal function, consumers' surplus and producers' surplus;
3. solve market and national income model, input-output model using matrix.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1		✓						
CLO2			✓					
CLO3		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Set Theory: Sets and their characteristics, subset, universal set, null set, power set, finite and infinite set, operations on sets- union and intersection of sets, disjoint sets, complement of a set, difference of sets, Cartesian products, Venn diagram associative and distributive laws of sets.	4	Lecture, Group discussion, problem solving	Class Participation, Q/A session
1	2. Progression: Arithmetic progression-general term, n-th term, sum geometric progression- common ratio, n-th term, sum; Maclaurin series, Taylor series.	4	Lecture, Class discussion, Exercise	Class Participation, Quiz
1	3. Maximization and Minimization: Maxima-absolute and relative, minima-absolute and relative, unconstrained and constrained maxima, unconstrained and constrained minima, utility and profit maximization; cost minimization.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1	4. Production Function: Cobb-Douglas production function; marginal productivities; elasticity of output; degree of homogeneity and returns to scale; Euler's theorem and distribution.	4	Lecture, Class discussion, Exercise	Class Participation, Q/A session
1,2	5. Integration: Concept of integration–indefinite integrals; definite integrals; rules of integration; applications of indefinite and definite integrals–marginal function to total function; consumer's surplus.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
1,2	6. Differential and Difference Equation: Definition and classification, homogeneous and non-homogeneous equation, dynamics of market price,	4	Lecture, Class discussion, problem solving	Class Participation, assignment

	higher order differential equations; General solution for first order difference equation, second order difference equation, the Cobweb model.			
1,3	7. Matrix and Linear Algebra: Rank of a matrix– the eigenvalue problem quadratic forms and positive definite matrices– maxima and minima in matrix terms– constrained extrema–differential calculus in matrix notation; application in input-output analysis; Applications of linear algebra to market and national income models.	4	Lecture, group discussion, problem solving	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Alpha. C. and Kevin, W. (2005): Fundamental Methods of Mathematical Economics, 4th Edition, McGraw Hill, New York.
- Baumol, W J (1959), Economic Dynamics: An Introduction, Washington DC, McMillan.
- Dowling, E. (1992), Introduction to Mathematical Economics, 2nd edition, Schaum's Outline Series, McGraw Hill, New York.
- Edward, D. (2003): Schaum's Outline of Theory and Problems of Introduction to Mathematical Economics, Third Edition, New York: McGraw-Hill Irwin.
- Hoy M., Livernois, J., McKenna, C., Rees, R. & Stengos, T. (2011), Mathematics for Economics, 3rd Edition, The MIT Press.
- Johnston, J. (1971). Econometric Methods (2nd ed.).New York: McGraw-Hill.

Course Title: Money and Banking

Course description

Money and Banking studies the role of money in the economy, the functions that banks perform, and their interrelationships. It aims to provide the students with an introduction to the role of money, different forms of banking and monetary policy in the economy, thus providing a solid foundation for further study or employment in the financial sector. This course will cover different concepts and functions of money, structure and importance of banking system, asymmetric information, bank management and regulation, objectives and instruments of monetary policies, and transmission mechanism of monetary policy.

Course Objectives

The core objectives of this course are to study the role played by banks in modern monetary economies and financial markets and to develop the basic foundation of the financial system: how it operates and why it plays a central role in the economy.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to-

1. understand the role of money and banks in an economy;
2. comprehend key models and concepts of money and banking theory;
3. acquire an understanding of the unique role of banks in the financial system;
4. learn the relevance of the central bank and related other banking topics;
5. apply key models and concepts of monetary economics and banking theory to current events;
6. analyze real-world monetary problems.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3								✓
CLO4								✓
CLO5			✓					
CLO6		✓						

Course Contents

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
2	1. Money: Barter System; evolution of money, definition and functions of money, importance of money, kinds of money, money and near money, monetary standard – commodity standard, paper standard, fiat standards; deposit money; near money; credit and money; money and capital markets.	4	Lecture, Discussion in small groups	Class Participation, Short Question/Answer

1,5	2. Quantity Theory of Money: The traditional quantity theory of money: the transaction velocity approach; the cash balance approach; the income version of the Cambridge equation; criticisms of the traditional quantity theory, the quantity theory of money of Milton Friedman, Keynes's liquidity preference theory.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
4	3. Central Banking: Functions of central banks; objectives of monetary policy; the goals and channels of central banking; central banking in a developing country, general instruments of monetary control- open market operations; discount rate policy; variations in reserve requirements.	4	Lecture, Discussion in small groups	Class Participation, Q/A session
Mid-term Written Examination: Chapter 1, 2, 3				
3	4. Commercial Banking: Definition and functions of commercial banks, concept of balance sheet of a commercial bank; items of a balance sheet; portfolio management of commercial banks; portfolio theory and financial intermediaries; online banking.	4	Lecture, Class discussion	Class Participation, Quiz
3	5. Non-conventional Banking: Development banking: problems, formation and operation of development banks in Bangladesh; Islamic banking: characteristics of Islamic banking; modes of investment; relationship with the central bank; monetary policy in an interest free economy; mobile banking; agent banking.	4	Lecture, Discussion in small groups, flip chart	Class Participation, Short Question/Answer
3,6	6. Economic Analysis of Banking Regulation: Asymmetric information and bank regulation, international banking regulation, banking sector reform in Bangladesh, non-banking financial institutions in Bangladesh.	4	Lecture, Group discussion, flip chart	Class Participation, presentation
6	7. Monetary and Financial Management: Instruments of	4	Lecture, Class Discussion,	Class Participation, Assignment/class

monetary control, selective instruments of monetary control-credit control policy, inflation and monetary control		flip chart	test
Final Written Examination: Chapter 4, 5, 6 and 7			

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Luckett, D. G., 1976, *Money and Banking*. London, McGraw Hill.

Mishkin, F. S., 2012, *The Economics of Money, Banking and Financial Markets*, Pearson.

Houk, J. T. R., 1967, *Financing and Problems of Development Banking*. New York, Fredrick A Pragar Publishers.

Rose, P. S. and Sylvia C. H., 2013, *Bank Management and Financial Services*, 9th edition.

Hamid, M. A., 1999, *Islamic Economics- An Introductory Analysis*,

Course Code: ECO 2104

Course Credit: 3

Second Year 1st Semester

Course Title: Fundamentals of Business: Management

Course Description

At present time management course is the vital course for the students. This course not only increases the human skill of the students but also provide them basic knowledge about management system. By studying this course, students get knowledge about how to become entrepreneur and how to run a business and how to work with team for better improvement. This course consists of the basic managerial functions of planning, organizing, staffing, directing, and controlling resources to accomplish organizational goals. The systems concept of management and the role of the manager at each level of the organization are emphasized. In addition, a special emphasis is placed on the skills that are necessary for a manager to be effective. The course involves an overview approach to cover the various concepts required for an overall understanding of management's role in the contemporary organization.

Course Objective

The objectives of this course are to

1. make familiar with basic concepts of business and management studies;
2. develop the skills how to run a business organization with proper management;
3. describe the process of management;
4. explain various levels of managerial skills;

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. recognize the basic concepts and usefulness of management studies in their life
2. demonstrate knowledge of managerial work, functions and importance of management
3. learn relevant managerial accounting skills, applying both quantitative and qualitative knowledge to their future careers in business.
4. develop a working knowledge of fundamental terminology and frameworks in the four functions of management: Planning, Organizing, Leading and Controlling;
5. identify and apply appropriate management techniques for managing contemporary organizations;
6. understand how to increase human skills, to work with group or teams for controlling process.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3			✓					
CLO4			✓					
CLO5								✓
CLO6							✓	

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction to Management: Meaning of management, the management process, kinds of manager, the nature of managerial work, scope of management, functions of management, basic managerial role and skills, importance of management and historical development of management	4	Lecture, Class discussion	Class Participation, Q/A session
1,4	2. Planning: meaning, nature of planning, types of plans, steps in planning. Planning: Meaning, importance, types, steps, factors affecting planning, planning techniques, limits to planning, making planning effective, decision-making process, nature of managerial decision making, factors in decision making.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
3,4	3. Organizing: Meaning, importance, types of organization structure, span of management, authority and responsibility, delegation of authority, centralization and decentralization of authority, meaning and importance of	4	Class Participation, presentation	Lecture, group discussion

	co-ordination, principles and procedure of co-ordination.			
Mid-term Written Examination: Chapter 1, 2, 3				
5,6	4. Managing Human Resource in organization: The environmental context of human resource management, the strategic importance of HRM, attracting human resources, developing human resources, maintaining human resources, new challenges in the changing workplace-managing knowledge workers, the nature of knowledge work.	4	Lecture, Class discussion	Class Participation, Q/A session
4	5. Leading: Direction, importance and principles of direction consultation direction, communication and its importance, types of communication main elements and process of communication, motivation and its importance, motivation process, motivation theories, financial and non-financial elements of motivation, leadership and its importance, styles of leadership, theories of leadership, power of leader, qualities of good leader.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
1,4,6	6. Managing Work Groups and Teams: Groups and teams in organization- stages of groups and team development, types of groups and teams, Characteristics of groups and teams-role structure, behavioral norms, interpersonal and intergroup conflict, managing conflict in organization-simulating, controlling, resolving and eliminating conflict	4	Lecture, group discussion	Class Participation, presentation
4,6	7. The Controlling Process: Basic elements of control-the nature of control, the purpose of control, operation control-preliminary control, screening control, post action control, , financial control-budgetary control, structural control-bureaucratic control, strategic control-integrating strategy and control, international strategy control managing control in organization	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment

Final Written Examination: Chapter 4, 5, 6 and 7

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Harold Koontz and c.o Donnefl (1972). *Management*. Wisconsin, McGrawhill.

Griffin R. W (2002) *Management*. Boston, Houghton Mifflin Harcourp Publishing Company.

Islam M and Khan A. (2010). *Principles of Management*. Dhaka, Mania Art Press., C. (2008).

KBernardin, H. J., & Russell, J. E. (2006). Human resource management (p. 736). New York: Tata

McGraw-Hill.oontz, H. (2010). Essentials of management. Tata McGraw-Hill Education.

Brigham, E. F., & Ehrhardt, M. C. (2019). Financial management: Theory & practice. Cengage Learning.

Course Code: BAN 1001**Course Credit: 3****Second Year 1st Semester**

Course Title: History of the Emergence of Bangladesh

Course Description

History of emergence of Bangladesh is the study of the historical facts up to the time of the Bangladeshi war of independence. In order to understand the rise of the Bengali nationalism and self-determination movement in what was then East Pakistan from 1947 to 1971, the course introduces the history of struggle of Bengali nation under the leadership of Bangabandhu Sheikh Mujibur Rahman. The course also introduces about various self-righteous movements which happened since 1947 and finally helped to achieve the independence. The course will enhance the capacity of the students to understand the philosophical bases on which the People's Republic of Bangladesh was created.

Course Objectives

On the justifying of the course the student shall gain a basic knowledge of the history of liberation war of Bangladesh. The objectives of the course are to:

1. Disperse in-depth knowledge about the struggle of liberation war;
2. Demonstrate understanding of the philosophies of the creation of this state;
3. Introducing the chronological history till liberation war;
4. Introducing the dream of our freedom fighters for which they sacrificed their life.

Course Learning Outcomes (CLOs): After successfully effectuated of the course, students will be able to:

1. Develop their understanding about the history of Bangladesh;
2. Research on the history of liberation war;
3. Compare between the expectation and achievement of our liberation war.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3	✓							

Course Content:

CLO Mapping	Course Content	Teaching-Learning Strategy	Assessment Strategy
1,3	Partition of India in 1947 Lahore conference; United Bangla plan; Two nation theory; Creation of Pakistan and India; Displacement crisis.	Lectures on different topics	Presentations
1,2	Language Movement of 1952 Primary discussion on Bangla and Urdhu language; early stage of movement; Agitation of 1948, 21 February of 1952; Constitutional status of Bangla language.	Interactive group works	
1,3	Disparity Between Two Wings of Pakistan Economic disparity; Administrative disparity; Political disparity.	Constructive analyze with students	
1,2	Military Rule of Ayub Khan and Six Point Movement Commander-in-Chief of the Pakistan Army; President of the Pakistan; Constitutional and legal reforms; Background of Six point movement; Six point movement; Result of six point movement.	Group discussion	Assignments
1,3	Mass Upsurge of 1969 and Yahiya Khan , General Election of 1970 Shorbodolio Chatro Shongram Porishad (All Party Student Action Committee); Democratic Action Committee.	Lecture	Mid Exam
1,3	Withdrawal of Agartala conspiracy case; Election campaign in East Pakistan, Political condition of west Pakistan.	Case study and lecture	
1,3	Result of the election and aftermath condition of election.	Lecture	
1,2,3	Presentation by students on assigned topic.	Presentation by students	

1,2,3	Revise class	Lecture	Class test
1	Historic Speech of 7 March, Non-cooperation Movement.	Lecture	
1	Genocide of 25 March, Declaration of Independence and Proclamation of Independence.	Group discussion	
1,2	Mujibnagar Government.	Lecture	
1,2	Contribution of different countries to independence, 14 th December Tragedy, 16 th December Victory.	Group discussion	
1,2	Government of Bangabandhu Sheikh Mujibur Rahman.	Lecture	
1	4 th November and 15 th August tragedy.	Lecture	
3	Liberation War: Expectation and Achievement: A Study	Constructive analyze	
1,2,3	Presentation by students on assign topics	Presentation by students	
1,2,3	Revise class	Lecture	
			Final Exam

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Books Recommended

K.B. Sayeed	: Political System of Pakistan
ডা. মো: মাহবুবুর রহমান	: বাংলাদেশের ইতিহাস, ১৯৪৭-১৯৭১
বশির আল হেলাল	: ভাষা আন্দোলনের ইতিহাস
আতিউর রহমান	: মুক্তিযুদ্ধের প্রস্তুতি পর্ব : অসহযোগের দিনগুলি
আবুল মাল আব্দুল মুহিত	: বাংলাদেশ: জাতিরাত্তের উদ্ভব

Leading Case

Agartala conspiracy case

Statutes

Indian Independence Act 1947

Constitution of Pakistan 1956

Constitution of Pakistan 1962

Constitution of Bangladesh 1972

(Additional books, journal articles, relevant cases will be discussed by the course teacher concerned)

Course Code: ECO 2201

Course Credit: 3

Second Year 2nd Semester

Course Title: Macroeconomics II

Course Description

Macroeconomics-II has an important role in providing undergraduate students with knowledge about intermediate-level macroeconomic theories and concepts. This course helps students to understand the functioning of modern economic system as well as classical and Keynesian views of macroeconomics. It describes how specific sectors of the economy function from the perspective of aggregate level analysis, how to achieve equilibrium state in the goods market and money market and introduces with major concept of monetary and fiscal policy variables. This course also discusses stability in price level and analyses fluctuations in business activities, suggests policy measures to control inflation and deflation, unemployment, etc.

Course Objective

Macroeconomics II course is designed with a view to give an intermediate level idea of important determinants of macroeconomic issues, e.g., demand for money, monetary and fiscal policy variables, and unemployment. Also, this course is expected to familiarize with modern as well as classical and Keynesian views of macroeconomic theories.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. identify the determinants of various macroeconomic aggregates;
2. describe the main macroeconomic theories of short-term fluctuations and long term growth in the economy;
3. critically evaluate the consequences of basic macroeconomic policy options.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3								✓

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Consumption Demand: The importance of consumption in aggregate demand, the short run and long run consumption function, the absolute income hypothesis and the permanent income hypothesis of consumption.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2,3	2. Investment demand: Business fixed investment, determinants of investment, residential investment, inventory investment, reasons for holding inventories, inventories and the real interest rate, investment decisions: PV, IRR and MEC.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
1,2,3	3. Demand for money: Components of the money stock; the functions of money; the demand for money: theory and empirical evidence.	4	Class Participation, presentation	Lecture, group discussion
Mid-term Written Examination: Chapter 1, 2, 3				
1,2,3	4. Classical and Keynesian Views: Pillars of classical macroeconomics: Say's law; savings-investment equality, wage-price flexibility; Keynes' view and criticism of the classical approach.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
1,2,3	5. Macroeconomic equilibrium-IS and LM approach: The goods market and the IS curve; the assets market and the LM curve; equilibrium in the goods and assets markets; adjustment towards equilibrium.	4	Lecture, group discussion	Class Participation, presentation
1,2,3	6. Monetary and Fiscal Policy: Meaning of monetary and fiscal policy; monetary and fiscal policy in the IS-LM framework; monetary policy and liquidity trap; fiscal policy and crowding out; policy mix- combination of monetary and fiscal policy.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2,3	7. Unemployment: Measurement of employment and unemployment, the relationship between employment and unemployment, types of	4	Lecture, Class discussion, problem	Class Participation, class test, assignment

	unemployment and unemployment policy, costs of unemployment; inflation and unemployment-the short run Philips curve.		solving	
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Nellis, J.G. and Parker, D. (2004) Principles of Macroeconomics, Prentice Hall.
Dornbusch and Fischer (2006) Macroeconomics, McGraw-Hill.

Course Code: ECO 2202

Course Credit: 3

Second Year 2nd Semester

Course Title: Statistics for Economics II

Course Description

Large amount of data are collected and analyzed by companies, authorities and organizations. To understand economic and business phenomenon, it is important to collect, analyze and interpret these large amount of data. For these purposes knowledge about statistical methods are needed. The course Statistics for Economics intends to provide the required knowledge in statistics to the students.

Course Objectives

The course introduces the concepts of sampling distribution that is required for statistical analysis. Inference theory is discussed to cover how to draw conclusions about populations based on random samples. The course will deal with methods of point estimation, confidence intervals and testing hypotheses. Different tests such as z, t, chi-square, F and ANOVA are discussed in connection with statistical hypothesis testing. Emphasis is given on the understanding of important concepts within the scope of the course. During the course, different examples will be used to show how statistical methods are applied. Performing of calculations with the help of relevant data will be a regular feature during this course.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. run statistical tests such as z, t, chi-square, F and ANOVA in connection with statistical hypothesis testing
2. draw conclusions about populations based on random samples;
3. analyze real world data within the scope of this course;
4. compute different statistics;
5. interpret derived statistical results

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1			✓					
CLO2					✓			
CLO3			✓					
CLO4					✓			
CLO5					✓			

Course Contents

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1,2	1. Concepts of Probabilities and Mathematical Expectation: Definition of probability, independent and dependent events, mutually exclusive and non-mutually exclusive events, conditional probability, basic theorem of probability theory; mathematical expectation and theories.	4	Lecture, Class discussion, problem solving	Class Participation, Q/A session
1,2	2. Probability distribution: The Binomial Distribution; The Normal Distribution; Relation between Binomial and Normal Distribution; The Poisson Distribution; Relation between Binomial and Poisson Distribution; Fitting theoretical distributions to Sample Frequency Distribution.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
1,2,4	3. Sampling distribution: Population, Sample and Sampling Distribution; Sampling Distribution of Mean; Sampling Distribution of Proportion; Sampling Distribution of Differences and Sums; Standard Error.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,2,3	4. Statistical decision theory: Statistical Decisions; Statistical	4	Lecture, Class	Class Participation,

	Hypothesis; Point estimation and Confidence Intervals; Tests of Hypothesis and significance; Tests Involving Normal Distributions; Two-tailed and One-tailed Tests; Testing Hypothesis about Population Mean; Tests Involving Binomial Distribution.		discussion, problem solving	Q/A session
1,2,3,5	5. The Chi-Square test: Chi-square Distribution and its Properties; Chi-square Test; Yates' Correction for Continuity; Applications of Chi-square Test – Concerning Variance, Independence and Goodness of Fit; Contingency Table.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
1,2,3,5	6. The t-Test and F-Test: Student's <i>t</i> Distribution; Small Samples and <i>t</i> -Test; Application of <i>t</i> -Test – Concerning Mean and Correlation Coefficient; The <i>F</i> Distribution and its Properties; Calculating Sample <i>F</i> Statistic; Application of <i>F</i> Test.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
1,2,6	7. Analysis of variance (ANOVA): The Purpose of Analysis of Variance; One-way Classification; Total Variation; Variation within Treatments and Variation between Treatments; Mathematical Model for ANOVA; Distributions of the Variation – ANOVA Table; Two-way Classification; Two-factor Experiments; ANOVA for Two-factor Experiments; Experimental Design.	4	Lecture, group discussion, problem solving	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Mittelhammer, R. C. (2013). *Mathematical Statistics for Economics and Business*, 2nd edition. New York: Springer.
- Gupta, S. P. and Gupta, M. P. (2008). *Business Statistics*. New Delhi: Sultan Chand & Sons.
- Spiegel, M. R. and Stephens, L. J. (2008). *Theory and Problems of Statistics*, 4th edition. New York: McGraw-Hill.
- Islam, M. N. (2011). *An Introduction to Statistics and Probability*, 4th edition. Dhaka: Mullik & Brothers.
- Gujarati, D. N. (2005). *Basic Econometrics*. 4th edition. New Delhi: Tata McGraw-Hill.
- M. G. Mostafa (2016). *Methods of Statistics*, Brothers Publications, Dhaka.

Course Code: ECO 2203

Course Credit: 3

Second Year 2nd Semester

Course Title: Bangladesh Economy: Development

Course Description

This course is designed to highlight the overall economic performance of the country and contemporary economic issues and policy in Bangladesh. The students are expected to put into practice the theoretical knowledge of economics in analyzing the economic policy and development in Bangladesh and to suggest remedial measures in the socio-economic context of Bangladesh. This course discusses these issues and highlights the performance of the country in different fields and recent trend of Bangladesh economy.

Course Objective

The major objective of this course is to show the present development achievements and policy determination of Bangladesh economy and analyze the economic features and macroeconomic performance of Bangladesh economy.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. earn knowledge about the development and policy issues of Bangladesh and compare major economic sub-sector wise contribution and policy adaptation to overall development of Bangladesh;
2. analyze and demonstrate the pattern, composition and distribution of economic resources using aggregate data of Bangladesh;
3. recognize the economic sectors that are running sluggishly and suggest recovery measures;
4. understand the present scenario of development activities and forecast future prospect of growth in different economic issues;
5. write research papers taking into consideration the relevance of economic theories in solving the real economic issues in Bangladesh.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3								✓
CLO4		✓						
CLO5						✓		

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Economic Development: Development and under-development- a historical analysis; causes of economic backwardness; development initiatives during pre-independence, determinants of development.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Resources for Development: Internal and external sources; private and public sources; methods for mobilization of domestic resources; role of foreign capital in economic development; role of foreign aid.	4	Lecture, Class discussion	Class Participation, Quiz
1,2	3. Rural Development: Concept and importance of rural development; rural institution; rural development board, RWP, FWP; approaches to rural development– Swanirvar movement, Ulashi; land reform.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
3,4	4. Strategy for Agricultural Development: Objectives- growth of output; employment opportunities and income distribution; methods of attaining the objectives; cropping pattern– HYV technologies; institutional reforms.	4	Lecture, Class discussion	Class Participation, Q/A session
3,4	5. Industrial Development: Industrial policy; problems of industrialization; export led and import substitution industrialization; problems and prospects of public and private sector industries; export processing zones (EPZ) and special economic zones (SEZ); roles of public and private sectors.	4	Lecture, Class discussion	Class Participation, Quiz/class test
3,4,5	6. Human Resource Development: Population policy; human resource development through education and training; poverty alleviation and employment generation; export of manpower.	4	Lecture, Class discussion	Class Participation, assignment
3,4,5	7. Budgetary Policy and Development: Monetary and fiscal policies; money laundering and corruption; good governance; five-year plans, perspective plans.	4	Lecture, group discussion	Class Participation, Presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Faaland, J and Perkinson, J R. (1977), *Bangladesh- A Test Case of Development*, London. C. Hurst and Company.
- BIDS (2004). *Economic Reform and Trade Performance in South Asia*. Research Monograph, Bangladesh Institute of Development Studies, Dhaka, University Press Ltd.
- Syed Saad Andaleeb (eds). (2008). *The Bangladesh Economy Diagnoses and prescriptions*. Dhaka, University Press Limited.
- Hossain M. Musharraf (1991). *Agriculture in Bangladesh: Performance, Problems and Prospects*, Dhaka, University Press Ltd.
- Sinha, N K. (1961): *Economic History of Bengal (vol 1-3)*, Calcutta.
- GOB (Various Years). *Bangladesh Economic Review*. Ministry of Finance, Government of Bangladesh, Dhaka.
- GOB (Various Years). *Five year Plans of Bangladesh*. Ministry of Planning, Government of Bangladesh, Dhaka.

Course Code: ECO 2204**Course Credit: 3****Second Year 2nd Semester****Course Title: Public Finance I****Course Description**

Public Finance-I has significant role to provide knowledge about the mechanism of government activities. As a major branch of economics, this course offers broad sense of the necessity of public sector and different laws and hypothesizes to explain growth of public sector. In addition, this course will help to earn adequate knowledge in the areas of public revenue and expenditure and debt financing. After completing this course in second year 1st semester, students will have capability to understand basic issues of government policy.

Course Objective

The major objective of this course is to provide basic knowledge to students about the financial activities of government concerning revenue, expenditure and debt operations and their effects on the economy.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. understand and evaluate the financial activities of government concerning revenue, expenditure and debt operations;
2. learn the procedure of tax collection and the incidence of tax; get idea about public debt

- and how government finance it;
3. earn knowledge about the positive and negative externalities of government activities and how to minimize the effect of negative externalities.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1								✓
CLO2								✓
CLO3		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction: Importance and scope of public finance; major fiscal functions – allocation, distribution and distributions; public finance vs private finance; central and local government finance in the context of Bangladesh.	4	Lecture, Group discussion	Class Participation, Q/A session
2	2. Government Expenditure: Causes of growth of public sector; hypothesis to explain the growth of public sector–Wagner’s hypothesis, Engel’s law; Baumol’s unbalanced growth model, Peacock-Wiseman hypothesis.	4	Lecture, Class discussion	Class Participation, Quiz
3	3. Theory of Public Goods: Concept of public and private goods; pure and impure public goods; optimal provision of public goods; optimal provision of private goods; The free rider problem and its implication.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
2,4	4. Government Revenue: Revenue sources of government; objectives of taxation; characteristics of a good taxation system; benefit principle and ability to pay principle, canons of taxation.	4	Lecture, Class discussion	Class Participation, Q/A session
2,4	5. Types and Incidence of Taxation: Direct tax, indirect tax, value added tax, ad-valorem tax, principles of taxation, proportional, progressive and regressive tax, the impact of taxation, the incidence and the effects of a tax, shifting of a tax.	4	Lecture, Class discussion	Class Participation, Quiz/class test

1,2	6. Public Debt: Concept of budget deficit; methods of deficit financing; impact of budget deficit on economic growth and employment; public debt; effect of debt on consumption and investment; burden of public debt–intergenerational equity; the management of public debt.	4	Lecture, Class and group discussion	Class Participation, assignment
2,4	7. Budget: Concept and techniques; revenue budget and development budget; balanced and unbalanced budget; balanced budget multiplier; analysis of recent budget and development plans in Bangladesh.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Musgrave Richard A. and Peggy B. Musgrave, (1980). *Public Finance in Theory and Practice*

Rosen Harvey S and Ted Gayer (2010), *Public Finance*, McGraw-Hill.

Aronson J. Richard (1985), *Public Finance*, Singapore: McGraw-Hill.

Cullis John and Philip Jones (1992), *Public Finance and Public Choice*, Singapore, McGraw-Hill.

Gruber, Jonathan (2010), *Public Finance and Public Policy*, Third Edition, Massachusetts Institute of Technology, Worth Publisher.

Kennedy, M. M. J. (2012). *Public Finance*. Asoke K. Ghosh, PHI Learning Private Limited, New Delhi-11000, Printed by Raj Press, New Delhi.

Course Title: Computer Fundamentals

Course Description

This course deals with the basic knowledge of Computers, hardware, input and output devices, database, networking, and the Internet. Students will be taught the basics of software as well as they will practice application software - MS Word, MS Excel, and MS PowerPoint in the lab and at home. They will also gain hands-on knowledge about the Internet and Email.

Course Objectives

The course objectives of this course are as to:

1. Understand the key concepts of computer hardware, software, operating system and networking.
2. Apply knowledge and skills gained in the lab to effectively use MS Word, MS PowerPoint, and MS Excel.
3. Apply proper etiquette and techniques to use internet, email etc.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. understand the key concepts of computer hardware and software;
2. apply their knowledge and skills of word processing software;
3. apply their knowledge and skills of application software for spreadsheet analysis;
4. make presentations, use internet and email effectively.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2					✓			
CLO3			✓					
CLO4							✓	

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Hardware and software: Hardware Units of Computer (Input, Output, Memory, Arithmetic Logic Unit, Control Unit), Software and its types, Operating Systems, Types of Computers, Computer Networking, Database Concepts and SQL, Programing Concepts, Number System, E-commerce	4	Lectures, Live demonstration	Question & Answer Presentations/ Assignments, Continuous class assessment,
1,2	2. Word Processing: Creating a new document, Document alignment, Font selection, Super Script, Subscript, Paragraph Indentation, Character Spacing, Line Spacing, Editing using	4	Live demonstration, Self-practice in lab and at	Midterm written exam Final written

	cut, copy and paste, Inserting Symbol, Bullet & Numbering, Header & Footer, Border and shading, Page setup, Printing a document, Working with picture and drawing, Auto correction, Find & Replace, Using a spell checker, Using Bengali font, Tables and Columns		home	exam
1,2,3	3. Spreadsheet Analysis: Row and column numbering; Inserting and deleting row and column; Changing row height and column width; Freezing & Unfreezing pane; Paste Special; Auto fill; Working with formulas; Conditional formatting; Cell formatting; Page setup; Sorting; Data Filtering; Chart and graphs	7	Live demonstration, Self-practice in lab and at home	
1,2,3	4. Presentation Software: Creating slide; Inserting new slides; Viewing slides; Applying design; Slide transition; Animation; Slide Show	7	Live demonstration, Self-practice in lab and at home	
1,2,3,4	5 Internet & Email: The use of internet, Searching for information, Downloading appropriate software, basics of email	6	Live demonstration, Self-practice in lab and at home	

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Lab performance	40
Total marks		100

Reading Materials:

1. Peter Norton: Introduction to Computer, McGraw-Hill Publishers
2. J. Stanley Warford: Computer Systems, Jones & Bartlett Publishers
3. Dr. M. Lutfar Rahman and Dr. M. Alamgir Hossain: Computer Fundamentals, Systech Publication Ltd.
4. William S. Davis: Introduction to Computers, McGraw-Hill Publishers
5. Mahbubur Rahman MS Word, Systech Publication Ltd.
6. Mahbubur Rahman, Ms Excel, Systech Publication Ltd.
7. Bappi Ashraf, Mastering MS PowerPoint, Gyankosh Prokashani

Course Title: Viva Voce

Course Description

The second year ending viva voce examination will be held at the end of 4th semester (2nd year; 2nd semester) based on the theoretical knowledge, skills and the practices which the students have undergone throughout the year. It is based on all the courses the students have studied in 2nd year, economy of Bangladesh and around the world.

Course Objectives

Objectives of this course are:

1. To acquire knowledge and abilities to face the interview board.
2. To equip the students with analytical and evaluation abilities to respond the spontaneous queries by the interview board.
3. To prepare the students to present the knowledge, skills and problem solving abilities in the most effective way.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. demonstrate the acquired knowledge of concepts and theories of Economics and their applications;
2. solve the real life problems, make better decisions and assess various policy implications;
4. make better communication and effective presentation of different topics learnt before.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3							✓	

Assessment/Evaluation

	Marks
Attendance	10
Viva	90
Total marks	100

Reading materials:

Books/study materials of all the courses of 2nd year (3rd and 4th semesters).

THIRD YEAR

Course Code: ECO 3101

Course Credit: 3

Third Year 1st Semester

Course Title: Microeconomics III

Course Description

Strong microeconomic foundation helps students analyze research and policy related problems and activities both in academic and professional life. Economic analysis these days requires some demanding and subtle mathematical techniques of microeconomics like programming, dynamic optimization and game theory in order to devise optimal resource allocation and distribution strategies over time. This course aimed at providing students with some moderate and advanced level microeconomic techniques that will enable them to conduct further study and research.

Course Objective

The objective of this course is to familiarize the students with some quantitative techniques of microeconomics. More specifically, we intend to enable our students and researchers in comparing among the competing alternatives in terms of mathematical elegance and precision.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. compute input-output matrix of an economy that works as a background study prior to formulating any plan (Five Year Plan for example). Besides, with the basic knowledge of I-O model, students can also construct Social Accounting Matrix and work with Computable General Equilibrium (CGE) model;
2. find solution of complex linear and non-linear programming problem and devise optimal ways of selecting production and consumption lines from possible alternatives;
3. analyze dynamic path of crucial micro and macroeconomic variables: finite and infinite time-horizon problems in investment and consumption planning, depletion path of renewable and non-renewable resources, neoclassical growth path and so on;
4. learn basic concepts of game theory, the key tool for modern market analysis in a strategic oligopolistic setting.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3		✓						
CLO4	✓							

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Input-Output (I-O) Analysis: Nature and basic mathematics of Leontief's I-O analysis; Closed and open I-O model and solution techniques –the idea of final demand; Dynamic I-O model; Hawkins-Simon Condition and its interpretations; Uses of I-O model, SAM and CGEM.	4	Lecture, Class discussion	Class Participation, Q/A session

2	2. Linear Programming: Nature of linear programming – problem formulation; Graphical solution and its limitations; Simplex algorithm – rules of pivoting; Artificial variable problem; Duality and its economic interpretation, duality theorem and solution of primal and dual problem;	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
2	3. Nonlinear Programming: Nature of non-linear programming; Graphical solution; Kuhn-Tucker conditions and its interpretations; Kuhn-Tucker sufficiency condition; Application of non-linear programming.	4	Class Participation, presentation	Lecture, group discussion
Mid-term Written Examination: Chapter 1, 2, 3				
3	4. Dynamic Optimization: Stability analysis and phase diagram; Nature of optimal control theory; Maximum principal and Hamiltonian; Discounting and Current Valued Hamiltonian; Fixed and free endpoint problems; Infinite time horizon problem; Applications – optimal investment and consumption, depletion path of renewable and non-renewable resource, neoclassical growth model.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
3, 4	5. Choice under Uncertainty: Expected utility hypothesis – St. Petersburg paradox; The Von Neuman-Morgenstern theorem – expected utility maximization; Risk aversion, fair bets and insurance; Measuring risk aversion; State preference approach to choice under uncertainty.	4	Lecture, group discussion	Class Participation, presentation
3, 4	6. Game Theory and Strategic Equilibrium: Basic concepts – players, strategies and payoffs; Nash equilibrium and dominant strategies; Existence of Nash equilibrium – Battle of the sexes game; Battle of the sexes with mixed strategies; The prisoner’s dilemma; The tragedy of the commons.	4	Lecture, Class discussion	Class Participation, Q/A session
2, 3	7. Welfare Economics: Idea of welfare economics; Pareto efficiency and welfare criterion; Compensation criterion – Kaldor, Hicks, Scitovsky; Aggregation of preference and Arrow’s Impossibility theorem; Social welfare function and its maximization; Fair allocations and equity.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Baumol, W. J. (1977). *Economic Theory and Operations Analysis*. Prentice-Hall.
- Chiang, A. C. (2005). *Fundamental Methods of Mathematical Economics*, 4th edition. McGraw-Hill.
- Dorfman, R., Samuelson, P. A., and Solow, R. M. (2012). *Linear Programming and Economic Analysis*. Courier Dover Publications.
- Green, H. A. J. (1980). *Consumer Theory*. Penguin Books.
- Henderson, J. M. and Quandt, R. E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw-Hill.
- Hoy, M., Livernois, J., McKenna, C., Ray, R., Stengos, T. (1996). *Mathematics for Economics*. The MIT Press.
- Leyard, P. R. G. and Walters, A. A. (2015). *Microeconomic Theory*. McGraw-Hill.
- Nicholson, W. and Snyder, C. (2008). *Microeconomic Theory: Basic Principles and Extensions*. Thomson South-Western.
- Romp, G. (1997). *Game Theory: Introduction and Applications*. Oxford University Press.
- Silberburg, E. (2001). *Structure of Economics: A Mathematical Analysis*. McGraw-Hill.
- Varian, H. R. (2010). *Microeconomic Analysis*. W. W. Norton & Company.

Course Code: ECO 3102

Course Credit: 3

Third Year 1st Semester

Course Title: Econometrics I

Course Description

This course uses statistical and mathematical techniques to understand economic issues and theories. Most of the cases, economic theories are abstract and might have no bearing on reality. Econometrics is a set of tools which can be used to confront theory with real-world data. Besides, it provides the tools to enable to extract useful information about important economic policy issues from the available data.

Course Objectives

This course aims to provide an introduction to analyze economic problems using quantitative methods by linking essentials of econometric theory to estimation techniques. At the end of this course, students will be expected to have gained basic skills in developing and interpreting models as applied to a variety of economic problems and data. Additional emphasis is placed on how to deal with economic data, developing a research project, and in developing critical thinking skills in applied economic analysis.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. explain important statistical and econometric concepts;
2. conduct basic econometric analysis;
3. apply basic simple and multiple linear regression, and Ordinary Least Squares (OLS) estimation procedure to real world problems;
4. explain and interpret econometric results;
5. generate and test hypotheses;
6. learn the reasons, consequences and tackling strategies of multicollinearity, heteroscedasticity, and autocorrelation problems;
7. describe the features of different types of economic data and command some basic tools and techniques of econometric analysis.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1			✓					
CLO2			✓					
CLO3			✓					
CLO4					✓			
CLO5						✓		
CLO6			✓					
CLO7			✓					

Course Contents

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction To Econometrics: What is Econometrics? Why a Separate Discipline?; Methodology of Econometrics; Choosing among Competing Models; Types of Econometrics. The Modern Interpretation of Regression; Statistical versus Deterministic Relationships; Regression versus Causation; Regression versus Correlation; The Nature and Sources of Data for Economic Analysis; The Measurement Scales of Variables.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Two-Variable Regression Analysis: The Concept of Population Regression Function (PRF); The Significance of the Stochastic Disturbance Term; The Sample Regression Function (SRF); The Classical Linear Regression Model: The Assumptions; The Method of Ordinary Least Squares; Properties of Least-Squares Estimators: The Gauss Markov Theorem; The Coefficient of Determination R^2 .	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
1,2	3. Two-Variable Regression Model – Extensions: Regression through the origin,	4	Lecture, Class	Class Participation,

	functional forms of regression model, scaling and units of measurements; Hypothesis Testing: The Test-of-Significance Approach; Testing, Reporting and Evaluating the Results of Regression Analysis. How to Measure Elasticity.		discussion, problem solving	class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,2	4. Multiple Regression Model: The three-variable model-notation and assumptions, interpretation of multiple regression equation, OLS estimation, inferences for the regression coefficients- partial regression coefficients, the multiple coefficient of determination R^2 and <i>adjusted</i> R^2 .	4	Lecture, Class discussion, problem solving	Class Participation, Q/A session
1,2,6,7	5. Multicollinearity: The Nature of Multicollinearity; Estimation in the Presence of Perfect Multicollinearity; Estimation in the Presence of High but Imperfect Multicollinearity; Multicollinearity: Much Ado about Nothing? Theoretical Consequences of Multicollinearity; Practical Consequences of Multicollinearity; Detection of Multicollinearity; Remedial Measures; Is Multicollinearity Necessarily Bad? An Extended Example: The Longley Data.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz/class test
1,2,6,7	6. Heteroscedasticity: The Nature of Heteroscedasticity; OLS Estimation in the Presence of Heteroscedasticity; The Method of Generalized Least Squares (GLS); Consequences of Using OLS in the Presence of Heteroscedasticity; Detection of Heteroscedasticity; Remedial Measures; Examples; A Caution about Overreacting to Heteroscedasticity.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
1,2,6,7	7. Autocorrelation: The Nature of the Problem; OLS Estimation in the Presence of Autocorrelation; The BLUE Estimator in the Presence of Autocorrelation; Consequences of Using OLS in the Presence of Autocorrelation; Detecting Autocorrelation; Remedial Measures.	4	Lecture, group discussion, problem solving	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30

Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Gujarati, D. N. (2004). *Basic Econometrics* 4th edition. McGraw-Hill.

Wooldridge J. M. (2009). *Introductory Econometrics: A Modern Approach*, 6th edition. Cengage Learning.

Gujarati, D. N. (1999). *Essentials of Econometrics*, 2nd edition. McGraw-Hill.

Maddala, G. S. (2001). *Introduction to Econometrics*, 3rd edition. John Wiley.

Johnston, J. (1984). *Econometric Methods*, 3rd Edition. New York: McGraw-Hill.

Rao, P. and Miller, L. (1971). *Applied Econometrics*. Belmont: Wadsworth.

Course Code: ECO 3103

Course Credit: 3

Third Year 1st Semester

Course Title: International Economics I

Course Description

This course provides an analysis of the economic relationships between countries, covering both trade and monetary issues. The course deals with international trade theory and policy followed by international macroeconomic issues such as balance of payments accounts. More specifically it covers issues such as reasons for trade and explanation of trade patterns and the gains accruing from trade or from restricting trade, the balance of payments, exchange rates and open-economy macroeconomic issues.

Course Objectives

The major objectives of this course are to make students familiar with the basic concepts of international trade, to provide knowledge and develop skills to compare different trade theories and their applicability, and to train up students to analyze trade policy, regional integration and balance of payments.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. distinguish between international and domestic economic issues, trade and monetary aspects of international economics;
2. explain the mix of goods and services that are traded internationally and its changes over time;
3. demonstrate gains from trade, terms of trade, effects of tariff and quota;
4. understand meaning of economic integration, balance of payments and trade policy.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3								✓
CLO4								✓

Course Contents

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1	1. World Trade: An Overview: The Geographical composition of Trade, Size Matters: The Gravity Model, Using the Gravity Model: Looking for Anomalies, Impediments to Trade: Distance, Barriers, and Borders, The Pattern of Trade, How Much Trade? Mercantilism: The Mercantilist economic system, the role of government.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. The Classical Theory of Trade: Adam Smith and The Invisible Hand. Labor Productivity and Comparative Advantage: The Ricardian Model, The Gains from Trade; The Concept of Comparative Advantage, A One-Factor Economy, Production Possibilities, Relative Prices and Supply. Misconceptions About Comparative Advantage: Productivity and Competitiveness, The Pauper Labor Argument, Empirical Evidence on the Ricardian Model.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
1	3. The Basis for Trade: Factor Endowments and The Heckscher-Ohlin Model, Factor abundance and Heckscher-Ohlin, commodity factor intensity and Heckscher-Ohlin. The Heckscher – Ohlin theorem, Leontief paradox.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,2,3	4. Terms of Trade and Gains from Trade: Introduction to terms of trade. Commodity, Income and single factor terms of trade. Measurement of terms of trade. Effects of terms of trade movement. Derivation of offer curve. Trading equilibrium.	4	Lecture, Class discussion	Class Participation, Q/A session

1,3	5. International Trade Policy: The instruments of Trade Policy, Import Tariffs, Specific tariffs, Ad Valorem tariffs, Other features of Tariff schedules, Export taxes and subsidies, subsidies to import competing industries.	4	Lecture, Group Discussion	Class Participation, Quiz/class test
1,4	6. Economic Integration: Introduction to economic integration, types of economic integration, static and dynamic effects of economic integration. Economic integration in real world.	4	Lecture, Class discussion	Class Participation, assignment
1,4	7. Introduction to International Monetary Economics: The Balance-of-Payments Accounts, Credits and Debits in Balance –of-payments Accounting, Exchange Rate Determination, International Policy Coordination, The International Capital Market.	4	Lecture, Class discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Krugman, P. R., Obstfeld, M. and Melitz, M. J. (2012). *International Economics: Theory & Policy*, 9th edition. Addison- Wesley.

Appleyard, D. R. and Field, Jr., A. J. (2014). *International Economics*, 8th edition. McGraw-Hill Irwin.

Course Title: Public Finance II

Course Description

In this course students will learn more details about public goods, public choice, problem of preference revelation; voting system. This course has a clear focus on negative externalities of private and public activities and their remedies. This course also gives idea about incidence of taxation and government expenditure on education, health and social safety.

Course Objective

The major objective of this course is to develop analytical skills of the students to evaluate complicated functions of government, like how government provide public goods to the society and how remedy the externality problems occur by public and private sectors.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. gain knowledge about voting system to provide public goods to the society;
2. identify the effects of taxation on consumption and saving and inter-generation equity;
3. explore government options to solve the externalities;
4. demonstrate the role of fiscal policy for full employment and to control inflation.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2			✓					
CLO3								✓
CLO4								✓

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Provision of Public Goods: Difference between pure public goods, pure private goods and club goods; efficiency in markets for pure private goods and pure public goods; Pareto efficiency; efficiency and equity in a general equilibrium model; Free market provision of pure public goods.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2,4	2. Public Choice: Private mechanism vs public mechanism for resource allocation; problem of preference revelation; voting-majority voting and median voter; voting paradox; singled picked preference; Arrow's impossibility theorem; role of politicians and parties in representative democracy; the leviathan hypothesis; new revelation mechanisms.	4	Lecture, Class discussion	Class Participation, Quiz

3	3. Public Goods and Externalities: Concept of externalities; positive and negative production externalities; positive and negative consumption externalities; private-sector solutions of negative externalities, public-sector remedies for externalities; environmental and health externalities – acid rain, global warming and the economics of smoking.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,4	4. Incidence and effects of taxation: Concepts of incidence; partial equilibrium analysis of incidence; general equilibrium analysis of incidence, effects of taxation on production, consumption, employment, inflation and saving; tax inefficiencies and their implications for optimal taxation; tax equity.	4	Lecture, Class discussion	Class Participation, Q/A session
2,4	5. State and Local Government Expenditure: Government expenditure on education, health, social security; pension plans; health insurance; social insurance vs self-insurance.	4	Lecture, Class discussion	Class Participation, Quiz/class test
4	6. Budget and Fiscal Policy: Zero-based budgeting and performance budget; Evaluation of recent budget of Bangladesh; fiscal policies for full employment; anti-inflationary fiscal policy; fiscal policy in the context of growth; fiscal policy in underdeveloped countries.	4	Lecture, Class discussion	Class Participation, assignment
4	7. Social Insurance: Definition of insurance, Expected utility model, asymmetric information and adverse selection in insurance, externalities in insurance market, unemployment insurance	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Aronson J. Richard (1985), *Public Finance*, Singapore: McGraw-Hill.
- Cullis John and Philip Jones (1992), *Public Finance and Public Choice*, Singapore, McGraw-Hill.
- Gruber, Jonathan (2010), *Public Finance and Public Policy*, Third Edition, Massachusetts Institute of Technology, Worth Publisher.
- Haymen, David N., *Public Finance: A Contemporary Application of Theory to Policy*, 10th Edition, Cengage Learning.
- Ulbrich, Holley H., *Public Finance in theory and Practice*, Second Edition, Routledge Taylor and Francis Group, London and New York.
- Kennedy, M. M. J. (2012). *Public Finance*. Asoke K. Ghosh, PHI Learning Private Limited, New Delhi-11000, Printed by Raj Press, New Delhi.

Course Code: ECO 3105**Course Credit: 3****Third Year 1st Semester****Course Title: Health Economics****Course Description**

Health Economics is an applied field of study that permits for the systematic and precise analysis of the problems that we face in improving health status. Health Economics aims to understand the behavior of individuals, health care providers, public and private organizations, and governments in decision-making by applying microeconomic theories of consumer, producer and social choice. This course is designed for undergraduate students to provide knowledge about the healthy lifestyles, positive health outcomes, economic evaluation of new health technologies, appropriate prices of medical inputs, and optimal public and private investment in health sector. It will also help students to understand how the markets for health and health services are different from other goods, with a particular emphasis on the role of government and market failure. In addition it will allow the students to understand the theoretical and empirical aspects of key health economics issues, including the demand for health and health services, supply side concerns, asymmetric information problems, health insurance and related topics.

Course Objectives

The main objective of this course is to teach students how to apply core microeconomic theories and concepts in analyzing different health related issues and problems. Specific objectives are to:

1. develop an understanding of the relevance of applying economic concepts to the health care sector;
2. familiarize students with microeconomic theories and concepts and make them able to use these theories and concepts in analyzing health system and health related problems;
3. provide students with sufficient background in health economics theory to make them realize how the health care market works and under what conditions health care can be efficiently produced and allocated through markets, regulations and planned system;
4. impart an understanding of the role of economic factors in the development of public policy concerning health and health care.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. understand economic characteristics of health and health care;
2. deal logically the relationship between health related theory, empirical modeling and interpretation of results;
3. suggest ways to apply and link economic theory with health-related issues;
4. realize how economic theory and methods are applied in the health care sector to efficiency and equity considerations in health and health care;
5. explore the methods of efficient resource allocation in health and health care.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2			✓					
CLO3								✓
CLO4		✓						
CLO5								✓

Course Contents

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1	1. Introduction to health economics: Concept of health Economics, scope of health economics, relevance of health economics, importance of health sector in macro economy, economic problems faced by the health sector.	4	Lecture, Class discussion	Class Participation, Q/A session
2,3,5	2. The production function of health: Production function of health, measures of health, determinants of health/health status, determining the allocation of resources to healthcare using health production function, empirical studies of health production function.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
2,3	3. Demand for health and healthcare: Need vs. demand, consumer as health	4	Lecture, Class	Class Participation,

	producer Grossman model on demand for health; investment and consumption on aspect of health investment, graphical and algebraic exposition of Grossman model, factors affecting demand for health and care, criticism of Grossman model, empirical evidence.		discussion, problem solving	class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
3,4	4. Asymmetric information and health care: Information and market, Extent of the problem of asymmetric information in health sector, health insurance and information, adverse selection and moral hazard, The agency relationship, agency and health care, consumer information, prices and quality.	4	Lecture, Class discussion	Class Participation, Q/A session
2,3,5	5. Insurance: Risk and insurance, insurance terminology, demand for insurance, risk aversion and willingness to pay for insurance, supply of insurance, the optimal level of coverage, effect of coinsurance and deductibles on demand, loading cost and insurance firm, tax system and demand for insurance, the price for insurance, the question of uninsured.	4	Lecture, Class discussion	Class Participation, Quiz/class test
2,3,5	6. Cost-Benefit Analysis and Application to Health Care: Cost-Benefit Analysis: Basic Principles, The Valuation Of Benefits and Costs, Cost-Benefit Analysis in Health Care, Quality –Adjusted Life Years (QALYs), Cost- Effectiveness Analysis.	4	Lecture, Class discussion	Class Participation, assignment
4,5	7. Health Care System in Bangladesh: Health status of the population, morbidity and mortality patterns, nutritional status, health care organizations, health policies and programmes, health work-force development, health service indicators, financing health, development of private health facilities.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Gerard, D. C. K. (2005). *The Economics of Health and Health Care Financing*, McMillan.
- Drummond, M. F., Sculpher, M. J., Torrance, G. W., O'Brien, B. J., Stoddart, G. L. (2005). *Methods of Economic Evaluation of Health Care Programmes*. Oxford University Press.
- Fledstein, P. J. (2004). *Healthcare Economics*, 6th edition. Belmar Publishers Inc.
- Folland, S., Goodman, A. C. and Stano, M. (2016). *The Economics of Health and Health Care*, 7th edition. New York: Prentice Hall.
- Gold, M. R., Siegel, J. E., Russell, L. B. and Weinstein, M. C. (1996). *Cost Effectiveness in Health Care and Medicine*, Oxford University Press.
- Henderson, M. A. and Moony, G. (1987). *The Economics of Health Care*. RKP.
- Phelps, C. (2012). *Health Economics*. New York: Herper Collince Publishing.

Course Code: ECO 3106

Course Credit: 3

Third Year 1st Semester

Course Title: Research Methodology

Course Description

This course gives detail idea of consecutive stages of conducting academic research. It introduces the students with evaluation and assessment techniques of economic variables using statistical tools. This course not only allows undergraduate students to formulate their own research problem but also conduct research by themselves and presents their own research findings in a standard manner. A successful completion of this course will improve students' research capability and enrich their research idea subsequently. Also, completion of this course helps presenting the results of their research using appropriate economic theories, concepts, terminology and methods in a professional setting.

Course Objectives

The major objective of this course is to explain the procedures and techniques of doing academic research. Moreover, this course will equip the students with sufficient tools and techniques of data collection and data analysis.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. learn the procedure of executing research;
2. formulate research problem and research hypothesis using economic variables;
3. apply different important techniques of data collection and data processing in research;
4. gather knowledge about organizing, writing and/or presenting research report.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1						✓		
CLO2						✓		
CLO3					✓			
CLO4							✓	

Course Contents

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction: Meaning of research; objectives of research; types of research; research process; problems encountered by researchers in Bangladesh.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Research Problem and Research Proposal: Definition of a research problem; selecting the problem; techniques involved in defining a problem with illustration; definition of research proposal; beginning the proposal process; major sections of research proposal.	4	Lecture, Class discussion	Class Participation, Quiz
2,3	3. Research Design: Meaning and importance of research design; important concepts relating to research design; different research designs; important experimental designs; concept of research hypothesis; procedure for hypothesis testing.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
2,3	4. Sampling Design: Census vs. survey; steps in sampling design; criteria for selecting a sampling procedure; random sample; definition of concepts relating to sampling; sample size and its determination techniques.	4	Lecture, Class discussion, problem solving	Class Participation, Q/A session
3	5. Methods of Data Collection: Methods of collecting primary and secondary data; methods of qualitative and quantitative data collection, selection of appropriate methods for	4	Lecture, Class discussion, Field work	Class Participation, Quiz/class test

	data collection; case study method.			
3,4	6. Processing and Analysis of Data: Quantitative data processing steps, processing techniques and processing operations; some problems in processing; types of qualitative data, qualitative data processing techniques; data analysis, data life cycle.	4	Lecture, Class discussion, Lab demonstration	Class Participation, assignment
3,4	7. Interpretation and Report Writing: Meaning of interpretation; technique of interpretation; different steps in writing report; layout of the research report; oral presentation; poster presentation.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Kothari, C. R. (1993). *Research Methodology: Methods & Techniques*. Calcutta: Wisha Prakashan.
- Kumar, R. (2010). *Research Methodology: A Step-by Step Guide for Beginners*. SAGE Publications Ltd.
- Punch, K. F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches*. SAGE Publications Ltd.

Course Title: Macroeconomics III

Course Description

This course is designed to make students conversant with an in-depth learning of advanced level concepts and theories of Macroeconomics. Thus, the course intends to equip the students with latest analytical tools and techniques to understand the Macroeconomic theories concerning consumption, business cycle, long run growth, IS-LM model under expectation, government spending, foreign trade and exchange rate, and inflation theories in the short and long run.

Course Objective

The main objective of this course is to make students learn the advanced level tools of Macroeconomics and increase their ability to understanding higher level theories of Macroeconomics. This course will also help to develop their capability to link various economic phenomena with existing theories. Finally, this course will enable students to develop skill to apply acquired knowledge with respect to policy issues.

Course Learning Outcomes (CLO): at the end of the course, the student will be able to-

1. understand advanced theories of aggregate consumption and investment behavior;
2. conceptualize how the long run economic growth is determined;
3. realize how commodity market and money market interact to settle equilibrium value of major macroeconomic variables, in general and under expectation;
4. understand the Macroeconomic issues under foreign trade and exchange rate regimes;
5. evaluate the nature, types, causes and consequences of inflation and unemployment both in the short and long run.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2	✓							
CLO3		✓						
CLO4	✓							
CLO5		✓						

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Theory of Consumption: The nature and scope of a study of consumption; the Keynesian vs. new classical approach; theories of consumption demand: the relative income hypothesis and the life-cycle hypothesis.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Inflation and Economic Activity: Output, unemployment and inflation; Okun's law; the	4	Lecture, Class discussion,	Class Participation, Quiz

	effects of monetary policy disinflation; expectations; credibility and nominal contracts; Philips curve: short-run and long-run; NAIRU.		problem solving	
2,3	3. Expectation and the IS-LM Model: Nominal vs. real interest rate; expected present discounted value; nominal and real interest rates in the short-run and in the medium-run.	4	Class Participation, presentation	Lecture, group discussion
Mid-term Written Examination: Chapter 1, 2, 3				
2,3	4. Long-run Economic Growth: Determinants of economic growth; full employment and potential GDP; Malthusian stagnation; savings in the Solow growth model; endogenous growth theory; policies to stimulate growth.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
2,3	5. Growth and the World Economy: Convergence in the Solow growth model; convergence and the divergence in the long-run; steady state growth; the augmented Solow model; geography, institutions and growth.	4	Lecture, group discussion	Class Participation, presentation
1,2,3	6. Theories of Business Cycle: Definition of business cycles, forecasting business cycles, causes of business cycles, theories of business cycles, consequences and policy responses.	4	Lecture, Class discussion	Class Participation, Q/A session
5	7. Government Spending and Budget Deficit: Government budgets, fluctuations in the deficit; the effects of government deficit; the government and the IS curve.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Hall, R. E. and Papell, D. H. (2010) *Macroeconomics: Economic Growth, Fluctuations, and Policy*. Viva-Norton.

Mankiw, N. G. (2009). *Macroeconomics*. New York: Worth Publishers.

Blanchard, O. and Sheen, J. (2009). *Macroeconomics*. Pearson.

Branson, W. H. (1989). *Macroeconomic Theory and Policy*. New Delhi: Harper Collins.

Course Code: ECO 3202

Credit: 3

Third Year 2nd Semester

Course Title: Econometrics II

Course Description

Econometrics II is an advance course with application of the classical linear regression model introduced in Econometrics I. This course aims to provide an introduction to analyze economic problems using quantitative methods by linking essentials of econometric theory to estimation techniques. For the same purpose it is introduced the maximum likelihood estimation method to allow the study of non-linear models, such that Logit, Probit and Tobit Models. Throughout the course numerous examples using real data will be presented to help students to apply the introduced tools. Special emphasis will be given to present the theoretical aspects in the most intuitive way. The main goal of this course is to provide students a deeper knowledge of the main econometric methods.

Course Objectives

The objective of this course is to discuss the dynamics of econometric models and applications and to equip the students with rigorous tools of analysis in different context of different analysis.

Course Learning Outcome (CLO): at the end of the course, the student will be able to:

1. how to construct model and identify errors;
2. generate and test hypotheses and describe the features of different types of economic data, and command some basic tools and techniques of econometric analysis;
3. Identify and apply the appropriate econometric methodology to respond to the problems appearing in the empirical study of some economic data;
4. understand dynamic econometric models.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1			✓					
CLO2					✓			
CLO3						✓		
CLO4			✓					

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. The General Linear Regression Model: k-variable regression model, assumptions of the classical linear regression model in matrix notation, OLS estimation of the model, Variance–Covariance Matrix of parameters, testing the overall significance of regression.	4	Lecture, Class discussion, Problem solving	Class Participation, class test, assignment
2,3	2. Specification Errors: Types of Specification Errors; Consequences of Model Specification Errors; Tests of Specification Errors; Errors of Measurement; Incorrect Specification of the Stochastic Error Term; Model Selection Criteria.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz, assignment
1	3. The Maximum Likelihood (ML) Method: Probability density function; maximum likelihood estimation; specification tests; ML estimator of σ^2 ; properties of ML estimators; comparison between OLS and ML estimations.	4	Lecture, Class discussion, problem solving	Class Participation, class test, Q/A Session
Mid-term written examination: chapter 1,2,3				
1	4. GLS and WLS: The Generalized Least Square (GLS) Method- Derivation of estimates and their properties, comparison between OLS and GLS estimations. The Weighted Least Square (WLS) Method- Derivation of estimates and their properties, comparison between OLS and WLS estimations.	4	Lecture, Class discussion, Practice using hypothetical data and software	Class Participation, class test, presentation

1,3	5. Simultaneous Equation Model: Simultaneous equation bias, endogenous and exogenous variables, structural and reduced form equation, The identification problem, under-exactly- and over identified models.	4	Lecture, Class discussion, Problem solving	Class Participation, Quiz, assignment
3,4	6. Qualitative Response Regression Models: The Nature of Qualitative Response Models; The Linear Probability Model (LPM); Applications of LPM; Alternatives to LPM; The Logit Model; Estimation of the Logit Model; The Probit Model.	4	Lecture, Class discussion, Problem solving	Class Participation, Q/A Session assignment
3,4	7. Dynamic Econometric Models: The Role of Time, or Lag, in Economics; The Reasons for Lags; Estimation of Distributed-Lag Models; The Koyck Approach to Distributed-Lag Models; Rationalization of the Koyck Model: The Adaptive Expectations Model.	4	Lecture, Class discussion, Lab practical	Class Participation, Lab performance, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Gujarati, D. N. (2004). Basic Econometrics, 4th Edition, The McGraw-Hill Companies.
- Wooldridge J. M. (2009). Introductory Econometrics: A Modern Approach, 6th Edition, Cengage Learning.
- Gujarati, D. N. (1999). Essentials of Econometrics, 2nd edition, McGraw-Hill.
- Maddala, G. S. (2009). Introduction to Econometrics, 4th edition, John Wiley.
- Verbeek, M. (2008), A Guide to Modern Econometrics, 3rd edition, Wiley.

Course Title: International Economics II

Course Description

This is an extension of course ECO 3103. This course discusses the post H/O theory, trade policy instruments, foreign exchange and international monetary institutions.

Course Objectives

The main aim of this course is to make students understand basic theories of international trade, trade policy instruments, political economy of trade policy and to provide them with the idea of foreign exchange, IMF and WTO.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. analyze how real-world phenomena can modify Heckscher-Ohlin conclusions;
2. understand the basis of trade in manufactures beyond Heckscher-Ohlin;
3. summarize the different nontariff policies used to restrict trade;
4. evaluate the effectiveness of trade policy in the presence of market imperfections;
5. summarize and explain fundamental underpinnings of the foreign exchange market and distinctions among various measures of the exchange rate;
6. understand how the price adjustment mechanism functions under a system of fixed or pegged exchange rates;
7. explain the purpose of the IMF and understand its strengths and weaknesses;
8. know about the functions and activities of leading global institutions controlling the global economy.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1			✓					
CLO2	✓							
CLO3								✓
CLO4								✓
CLO5	✓							
CLO6		✓						
CLO7								✓
CLO8								✓

Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. The theory of trade: Heckscher-Ohlin Theory, empirical testing of the theory. The Factor price Equalization Theorem, The Stolper-Samuelson Theorem	4	Lecture, Class discussion,	Class participation, assignment, Q/A Session
2,3	2. Post Heckscher-Ohlin theories of trade: The Imitation Lag Hypothesis, The Product Cycle Hypothesis, Vertical	4	Lecture, Class discussion,	Class participation, presentation,

	Specialization-Based Trade, Firm-Focused Theories		problem solving	assignment
3,4	3. Trade policy instruments: Non-tariff barriers to trade, political economy of trade policy: free trade and efficiency, additional gains from free trade, rent-seeking.	4	Lecture, Group discussion	Class participation, group assignment
Mid-term written exam: chapter 1,2,3				
4,5	4. Political economy of trade policy: Arguments for interventionist trade policy: Trade policy as a part of broader social policy objectives, Protection to offset market, Protection as a response to international policy distortions, Strategic Trade policy: Fostering comparative advantage	4	Lecture, Class discussion	Class participation, class test, assignment
5,6	5. Foreign exchange market: Foreign exchange rate, types of foreign exchange rate, foreign exchange rate determination, foreign exchange market.	4	Lecture, Class discussion	Class participation, Quiz, assignment
6,7	6. Price adjustment and balance of payments disequilibrium: Balance of payments and policies for balance of payments adjustment. The elasticity and absorption approaches.	4	Lecture, Class discussion	Class participation, presentation, assignment
7,8	7. The international monetary system: The International Monetary System- past, present, and future; International Institutions: IMF, WB, WTO.	4	Lecture, Class discussion,	Class participation, class test, Q/A Session
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
	Total marks	100

Reading Materials:

Krugman, P. R., Obstfeld, M. and Melitz, M. J. (2012). *International Economics: Theory & Policy*, 9th edition. Addison- Wesley.

Appleyard, D. R. and Field, Jr., A. J. (2014). *International Economics*, 8th edition. McGraw-Hill Irwin.

Course Title: Economic Development I

Course Description

This course contains the fundamental concepts of economic development as well as development theories and approaches. Students need to get basic knowledge on these concepts, theories and approaches for better understanding of the development process of an economy. The factors that enhance and deter economic development are also included in the course content. Thus, the course is designed to equip the students with tools and techniques to learn development, development theories, interfaces between poverty, inequality and population growth with development, migration, education and health issues of development.

Course Objectives

The aim of this course is to increase knowledge required to understand various issues and theories of development. The specific objective of this course is to:

1. increase analytical and critical skills relevant to economic development;
2. familiarize students with concepts of economic development, indicators of development;
3. introduce students with different theories of development;
4. provide knowledge about poverty and inequality, population growth, rural-urban migration, education and health issues of development.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. demonstrate familiarity with some central concepts and issues of economic development;
2. demonstrate the understanding of the difference between growth and development, major growth theories, the measurement of inequality, significance of agriculture in developing countries, poverty and population issues facing the world;
3. understand the role of education and health on economic development;
4. relate various development theories with empirical evidences in the developing countries.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3				✓				
CLO4			✓					

Course Contents

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1	1. Meaning and Measurement of Economic Development: Concepts of economic growth and development; indicators of development and underdevelopment; common characteristics and diversity amongst poor and emerging economies.	4	Lecture, Class discussion	Class Participation, Q/A session

2	2. Theories of Development: Classical theories of economic development, Lewis; Ranis-Fei and Todaro models of dualistic development; new growth theory; their relevance to developing countries; A.K. Sen's Theory of Entitlement and development with human face.	4	Lecture, Class discussion	Class Participation, Quiz
1,2	3. Approaches to Development: Endogenous and exogenous growth approaches, trickle down approach, participatory approach to development, balanced and unbalanced growth, Export led growth, import substitution, green growth approach.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
2,4	4. Food security: Dimensions of food security: availability, access and nutrition. Stability of food security: chronic versus transitory, temporary versus seasonal, vulnerability and resilience, sources of risk, typical vulnerable groups, consumption pattern and demand determinants, emerging challenges to food security.	4	Lecture, Class discussion	Class Participation, Q/A session
2,4	5. Poverty, Inequality and Development: Measuring inequality– size and functional distributions of income; poverty measurement– headcount index; human poverty index; strengths and weaknesses of poverty measures. poverty alleviation– micro credit system; role of NGOs.	4	Lecture, Class discussion	Class Participation, Quiz/class test
4	6. Population Growth and Rural-Urban Migration: Population growth– theory of demographic transition; Malthusian population trap; microeconomic household theory of fertility; rural-urban migration– characteristics of labour markets; theory of rural-urban migration.	4	Lecture, Class discussion	Class Participation, assignment
3	7. Education and Health in Economic Development: Role of human capital in economic development; contribution of education to economic growth; impact of education; creating human capital; health and nutrition; investing in health.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

Todaro, M. P. and Smith, S. C. (2003). *Economic Development*, 8th edition. Addison-Wesley.

Perkins, D., Radelet, S., Snodgrass, D., Gillis, M. and Roemer, M. (2001). *Economics of Development*, 5th edition. W.W. Norton.

Meier, G. and Rauch, J. (2000). *Leading Issues in Economic Development*, 7th edition. Oxford University Press.

Ray, D. (2008). *Development economics* (pp. 1364-1379). Palgrave Macmillan UK.

Course Code: ECO 3205

Credit: 3

Third Year 2nd Semester

Course Title: History of Economic Thought

Course Description

The history of economic thought is an integrated framework comprising the evolution of competing economic ideas, evidence, problems and values in different time scales. Economics as a distinguished discipline progressed using insights of ancient economic thinking, age of political economy and gliding towards numerous modern economic theories. The study of the history of economic thought is required in understanding how present theories are rooted in the legacy of the past ideas and in enriching the knowledge of economics.

Course Objectives

The objective of this course is to get students acquainted with different lens of economic thinkers in formulating competing and changing theories as society progressed from ancient antiquity. It is also aimed at introducing students with different schools and thoughts of economics.

Course Learning Outcome (CLO): At the end of the course, the student will be able to-

1. understand the linkage between economic policies & events and knowledge domain;
2. relate social problems and the emergence of economic theories with relevance to the functioning and management of economy;
3. analyze evidence based economic theories using the lens of critical thinking and compare between early political economy and modern economics;
4. understand of advance in contemporary economic theories and explore new dimensions of problems.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3			✓					
CLO4		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Ancient economic thought and the birth of political economy: Hebrew and Indian economic thought; Greek economic thought-Plato and Aristotle; Roman Economic Thought; Medieval economic ideas–St Thomas Aquinas, Nicholas Oresme; bullionism; mercantilism-commercial, demographic and monetary theories; the forerunners of classical political economy – Petty, Locke, North, Mandeville, Boisguillebert and Cantillon	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Classical economic ideas and the laissez faire revolution: Adam Smith – The invisible hand, theory of capital accumulation and distribution, theory of value; David Ricardo – the Corn law, theory of rent, value and distribution; Ricardo’s view on economic development and stationary state; Thomas Malthus; Nassau W Senior and J.S. Mill.	4	Lecture, Class discussion	Class Participation, class test, assignment
1,3	3. Socialist Economic Thought: The birth of the workers’ movement; the two faces of Utopia; The Utopians-Saint-Simon and Fourier; The French socialists-Sismondi, Proudhon, and Rodbertus; The English Socialists – Godwin and Owen, The Ricardian socialists and related theories	4	Lecture, Class discussion	Class Participation
Mid-term Written Examination: Chapter 1, 2, 3				
1, 3	4. Marxian Economic Thought: Marx and the classical economist; Marx’s prognosis of capitalism, theory of surplus value and exploitation, theory of realization and the crisis of capitalism; The post-war development of Marxism – 20 th century Neo Marxism and the Dependency School.	4	Lecture, Class discussion	Class Participation, Q/A session

1,4	5. Utilitarianism, marginalist revolution and the neoclassical orthodoxy: Marginalistic revolution and the birth of neo classicism; The contributions of W S Jevons, Leon Walras, Carl Menger; Marshall and the English neo classical Economists, Neo classical theory in the US, Neo classical theory in Austria and the Austrian School and the Italian School	4	Lecture, Class discussion	Class Participation, Quiz/class test
1,4	6. The Keynesian school: Departure from the classical views; The criterion of Keynesian economics; Keynes' view on wages and spending, excess saving; active fiscal policy, multiplier effect and redistribution	4	Lecture, Class discussion	Class Participation, assignment
1,4	7. The institutional school, welfare economics & new classicism: Welfare Economics- Pareto; Friedman and the Chicago School; The theory of General Equilibrium; The New Welfare Economics and the Theory of Justice – Von Hayek, Thorstein Veblen, Ronald Coase and the market failure theory, Arrow's Impossibility theorem; Sen and the Theory of Justice.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Bernstein, H. (2010). *Class dynamics of agrarian change* (Vol. 1). Kumarian Press.
- Haney, L, H (1977), *History of Economic Thought*. New York, McMillan.
- Hunt E K and Mark Lautzenheiser (2011), *History of Economic Thought*, 3rd Edition. NY and London, Armonk.
- Islahi, A. A. (2014). *History of Islamic Economic Thought: Contributions of Muslim Scholars to Economic Thought and Analysis*. Edward Elgar Publishing.
- Lokanathan V. (2018). *A History of Economic Thought*, 10th Edition, S. Chand Publishing. Roll, E. (1938). *History of economic thought*. faber and faber, London.

Course Title: Project Appraisal

Course Description

This course provides students with essential knowledge and skills to effectively apprise and analyze projects by applying latest tools and techniques. This course demonstrates how to manage project risks and uncertainties and ensure profit margins and sustainability in uncertain times. Also, it covers impact evaluation theories. This course combines theory and practice and hence helps student understand planning a design, the evaluation of a project and its management in a sequential manner.

Course Objectives

The main objective of this course is to help students undertake technical, economic, financial risk analysis approach and develop project planning and management skills following the learning by doing approach that helps selecting projects to meet national and organizational objectives.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. design and implement development projects independently;
2. analyze financial inflow and outflow and find the best project which is financially and economically suitable for the country;
3. achieve clear idea of the social and environmental benefits and costs of the competitive projects.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1						✓		
CLO2		✓						
CLO3				✓				

Course Content

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1,2	1. The project: Definition; difference between private and public projects; importance and difficulties of projects; stages of a project–project identification, feasibility study, project design, implementation and ex-post evaluation; components of project; feasibility study – a schematic diagram.	4	Lecture, Class discussion	Class participation, Q/A Session, assignment
1,2	2. Technical analysis: Manufacturing process; technical arrangement; materials and inputs; product mix; plant capacity; location and site; machineries and equipment, structures and civil works; environmental aspects; project charts and	4	Lecture, group discussion	Class participation, group assignment

	layouts; project implementation schedule and need for considering alternatives.			
1,2,3	3. Financial appraisal: Objectives of financial appraisal of projects; theory of net present value (NPV), benefit-cost ratio (BCR) and internal rate of return (IRR) as investment appraisal techniques; relative strengths and weaknesses of NPV, BCR and IRR; identifying and using cash flows for investment appraisal; dealing with inflation.	4	Lecture, Class discussion, Problem solving	Class participation, class test, assignment
Mid-term written examination: chapter 1,2,3				
1,2,3	4. Economic appraisal: Rationale for economic analysis of projects– neoclassical theory; market failure; need for public projects; need for shadow prices; examples of shadow pricing; consumer and producer surplus; traded versus non-traded goods; domestic versus international prices; valuing traded and non-traded goods; shadow exchange rate; UNIDO and LM methods; foreign exchange premium; shadow price of labour; land and natural resources.	4	Lecture, Class discussion	Class participation, presentation, Q/A Session
1,2,3	5. Choice of social discount rate and social appraisal of projects: Function of the social discount rate; determination of the social discount rate – the neoclassical approach, the Harberger, Sandmo and Dreze approach and decision maker approach; the purpose of social cost benefit analysis; distributional weights and the methods of estimating appropriate distributional weight; the Squire and van der Tak approach to social cost benefit analysis	4	Lecture, Class discussion, Problem solving	Class participation, presentation, assignment
1,2,3	6. Risk and Uncertainty: Definitions; sensitivity analysis; expected net present value; risk analysis– probability distributions; Monte Carlo analysis; attitudes towards risk; handling pure uncertainty in cost benefit analysis.	4	Lecture, Class discussion,	Class participation, Quiz, assignment
1,2,3	7. Environment and project appraisal: Reasons for valuation of environmental externalities; valuation concepts– use	4	Lecture, Class	Class participation,

	value; option value; existence value; valuation methods– implicit valuation, contingent valuation, choice modeling, travel cost method, averting behavior, hedonic pricing, replacement cost, production function.		discussion	presentation,
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- Campbell, H. and Brown, R. (2003). *Benefit-Cost Analysis: Financial and Economic Appraisal using Spreadsheets*. Cambridge University Press.
- Perkins, F. (1994). *Practical Cost Benefit Analysis: Basic Concepts and Applications*. Macmillan.
- Chandra, P. (2019). *Projects Planning, Analysis, Financing, Implementation, and Review*. 9th edition. McGraw-Hill.
- Gittinger, J. P. (1982). *Economic Analysis of Agricultural Projects*, 2nd edition. Johns Hopkins University Press.
- Lester, A. (2003). *Project Planning and Control*. Butterworth-Heinemann.
- Kirkpatrick, C. and Weiss, J. (1996). *Cost-Benefit Analysis and Project Appraisal in Developing Countries*. Edward Elgar.

Course Title: Viva Voce

Course Description

The third year ending viva voce examination will be held at the end of 6th semester (3rd year; 2nd semester) based on the theoretical knowledge, skills and the practices which the students have acquired in last one year. It is based on all the courses the students have studied in 3rd year, social and economic conditions of the country and around the world.

Course Objectives

Objectives of this course are:

1. To acquire knowledge and abilities to face the interview board.
2. To Equip the students with analytical and evaluation abilities to respond the spontaneous queries by the interview board.
3. To prepare the students to present the knowledge, skills and problem solving abilities in the most effective way.

Course Learning Outcome (CLO) At the end of the course, the student will be able to:

1. demonstrate the acquired knowledge of concepts and theories of Economics and their applications;
2. solve the real life problems, make better decisions and assess various policy implications;
4. make better communication and effective presentation of different topics learnt before.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3							✓	

Assessment/Evaluation

	Marks
Attendance	10
Viva	90
Total marks	100

Reading materials:

Books/study materials of all the courses of 3rd year (5th and 6th semesters).

FOURTH YEAR

Course Code: ECO 4101

Course Credit: 3

Fourth Year 1st Semester

Course Title: Economic Development II

Course Description

This course is designed to acquaint students with comprehensive idea regarding specific development issues linked with development process of the economies. It emphasizes to discuss the issues such as factors of economic development, growth strategies, trade, gender and development, international aid and initiatives for economic development.

Course Objectives

The objectives of this course are to:

1. familiarize students with a wide range of development issues and perspectives in an advanced way;
2. cultivate the analytical and critical skills to link these issues with economic development;
3. acquaint students with the factors of growth and different growth strategies;
4. to introduce students with international aid institutions and international initiatives for economic development.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. demonstrate familiarity with some relevant factors and issues of economic development;
2. demonstrate skills to link various evidences with development theories;
3. understand various growth strategies for economic development;
4. examine critical role of international aid and international initiatives for economic development.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2				✓				
CLO3				✓				
CLO4								✓

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Factors of Economic Development: capital accumulation, sources of capital formation and its necessity, monetary and fiscal policy for optimal development, investment patterns in LDCs, Technical change-neutral, non-neutral embodied and disembodied technical change, labor saving capital saving, labor augmenting and capital augmenting technical progress.	4	Lecture, Class discussion	Class Participation, class test, assignment

1,2	2. Inclusive Growth Strategy: Inclusive growth strategy, pillars of inclusive growth, development challenge and situational analysis, rural infrastructure and inclusive development, trade and inclusive growth- factors, experiences, adjustments and policy making.	4	Lecture, Class discussion, group discussion	Class Participation, Q/A Session, assignment
1,2	3. Trade and Development: Export characteristics; primary exports as an engine of growth; barriers to primary export-led growth; import-substituting industrialization; outward looking development.	4	Lecture, Class discussion,	Class Participation, class test, group assignment
Mid-term written examination: chapter 1,2,3				
3	4. Foreign Aid, Investment and Development: Resource transfers to developing countries; foreign direct and indirect investment and multinational corporations; political economy of aid; international indebtedness– economic and political impact.	4	Lecture, Class discussion,	Class participation, Q/A Session, assignment
3	5. Gender and Development: Gender differences, gender disaggregated vs gender sensitive indicators, household vs individual indicators, UNDP indicators, Integration of gender in Development, Women empowerment approaches-WID, WAD, GAD; Women development policy- CEDAW, Women and development in Bangladesh.	4	Lecture, Class discussion,	Class participation, group assignment
3	6. Development Institutions: World Bank and IMF– their evolution; role and organizational forms; regional development banks; contending perspectives on development cooperation.	4	Lecture, Class discussion,	Class participation, Quiz, assignment
4	7. Current Issues in Economic Development: Millennium development goals, Poverty reduction strategy paper, Sustainable development goals, Special programs of the government- social safety net (SSN) programs	4	Lecture, Class discussion,	Class participation, presentation, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Michael P. Todaro and Stephen C. Smith (2003), *Economic Development*, 8th edition, Addison-Wesley.

Dwight Perkins, S. Radelet, Donald Snodgrass, Malcolm Gillis, and Michael Roemer, *Economics of Development*, 5th edition, W.W. Norton, 2001 or later edition.

Gerald Meier and James Rauch (2000), *Leading Issues in Economic Development*, 7th edition, Oxford University Press.

Ray, D. (2008). *Development economics* (pp. 1364-1379). Palgrave Macmillan UK.

Course Code: ECO 4102

Credit: 3

Fourth Year 1st Semester

Course Title: Resource and Environmental Economics I

Course Description

Natural resources and energy are crucial elements not only for our everyday life but also for any economic activities at any level of all economies from least developed to developed countries. Whilst we are using natural resources, we are to protect them for future generations as resources are getting scarce/ degrading day by day. Understanding and managing natural resource and energy is thus very important for sustainable economic and environmental development which is one of the goals of SDGs that all countries are currently pursuing. The purpose of this course is to explore various aspects of natural resources and energy. This will help students learn theoretical underpinning and economics insights in evaluating resources and energy use.

Course Objectives

This course provides a general overview of important aspects of provision, management, and economic importance of natural resources. Its aim is to make students acquainted with various topics related to natural resources, namely minerals, fossil fuels, fisheries, forest resources, and energy markets including energy market interactions and pricing, and regulation of the markets and the impact of resources on economic activities.

Course Learning Outcome (CLO): at the end of the course, the student will be able to:

1. understand the basic economic principles that lead the use of natural resources;
2. know the economics of electricity including market power in the industry;
3. discuss and analyse competing visions for energy policy.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2				✓				
CLO3				✓				

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Introduction to natural resource and energy economics: Natural resource economics and its major subdivisions, inter-temporal dimensions of resource use, sustainability, biodiversity; economy-natural system interaction; Renewable, Non-renewable, and Environmental Resources; Energy economics and energy policy; Energy and Multidimensional Interactions.	4	Lecture, Class discussion	Class Participation, Q/A session
1	2. Non-renewable (exhaustible) resources: Concept; the Hotelling rule; optimal depletion of non-renewable resources; a fixed stock two period model for non-renewable resource; resource extraction in a perfectly competitive market; resource extraction in a monopolistic market; a comparison of competitive and monopolistic extraction programs; the effects of changing parameters.	4	Lecture, Class discussion	Class Participation, Quiz
1	3. Renewable resource: Concept and typology of renewable resources, similarity and dissimilarity between renewable and non-renewable resources; fisheries–biological growth processes; steady-state harvest; maximum sustainable yield (MSY); open access resources vs common property resources; the open access fishery model; the profit maximizing fishery model; renewable resource policy-command and control regulations, incentive based instruments.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1	4. Renewable resource (forestry): Economics of forest resources, Forest Growth and the Biological Rotation,	4	Lecture, Class discussion	Class Participation, Q/A session

	Optimal Aging Problem: The Wicksell Rotation, Efficient Forest Management over Time: The Faustmann Rotation, Public Goods, Property Rights, and Deforestation			
1	5. Introducing environmental economics: Economic analysis, importance of incentives, incentives and global warming, the design of environmental policy, macroeconomic question: environment and development, globalization and the environment, economics and politics; The fundamental balance, the environment as an economic and social asset, basic terminology, emissions, ambient quality, and damages, types of pollutants.	4	Lecture, Class discussion	Class Participation, Quiz/class test
2	6. The economics of environmental quality: Minimisation of waste disposal costs, pollution damages, abatement costs, the socially optimal (efficient) level of pollution, Changes in preference and technology and their effects on the optimal level of pollution, An alternative look at market failure. Enforcement costs, The Equi-marginal Principle Applied to Emission Reductions.	4	Lecture, Class discussion	Class Participation, assignment
2	7. Regulating the environment through judicial/regulatory procedures: Criteria for evaluating environmental policies; Environmental regulation through liability laws, The property rights or Coasian approach, problems with property rights to internalize externalities, voluntary action; command and control strategies- the case of standards.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Bhattacharyya, S.C., 2011. *Energy economics: concepts, issues, markets and governance*. Springer Science & Business Media.

Perman, R., Ma, Y., McGilvray, J. and Common, M., 2003. *Natural resource and environmental economics*. Pearson Education.

Barry C Field; Martha K Field (2017). *Environmental economics an introduction*, 7th edition, New York, NY McGraw-Hill Education New York, NY McGraw-Hill Education.

Course Code: ECO 4103**Credit: 3****Fourth Year 1st Semester****Course Title: Labour Economics****Course Description**

The course 'Labour Economics' includes theories of choice to analyze and predict the behavior of labour market participants and the economic consequences of labour market activity. This course explains the dynamics and functions of the labour markets. It focuses on informational problems arising in labor market interactions as well as on the role of unions and employers' associations. This course is suitable for students who wish to gain their understanding on labour market mechanisms and public policies by using economic theory and empirical analysis.

Course Objectives

The primary objective of this course is to provide an introduction to theories of economic behaviour in the labour market. It is also aimed at understanding different labour market problems and policy options.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. understand the theory of individual labor supply and use the theory of labor supply to analyze the allocation of working hours, the difference between male and female labor supply, and the impact of government policies on labor supply;
2. realize the theory of labor demand and analyze labor market equilibrium under different market conditions;
3. explore human capital investments, wage differentials and wage structures;
4. analyze various topics such as migration, labor market discrimination, and incentive problems in labour market.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3				✓				
CLO4		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Introduction: Introduction; importance of labour economics; the old and the new concepts; labour economics as a subsystem	4	Lecture, Class discussion	Class Participation, Q/A session

	of the economic system.			
1	2. The theory of individual labour supply: Supply of labour in the short-run and long-run; work-leisure decision- basic model; income and substitution effect; rationale for back-ward bending supply c; elasticity versus change in labour supply.	4	Lecture, Class discussion	Class Participation, Quiz
2	3. The demand for labour: Derived demand for labour; short run demand for labour: perfectly competitive seller; long-run demand for labour; market demand for labour; elasticity and labour demand.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
1,3	4. Wage determination and the allocation of labour: Theory of perfectly competitive labour market; wage and employment determination: monopoly in the product market; wage and employment determination; monopsony in the labour market; union and wage determination.	4	Lecture, Class discussion	Class Participation, Q/A session
1,3	5. Labour union and collective bargaining: Are union maximizers? Collective bargaining: a complex transaction; a model of the bargaining process; the union wage advantage; spillover effects; threat effect; other effects	4	Lecture, Class discussion	Class Participation, Quiz/class test
4	6. Labour market discrimination: Discrimination and its determinants; types of discrimination; theories of labour market discrimination; cause and effect non-discriminatory factors.	4	Lecture, Class discussion	Class Participation, assignment
4	7. Labour market and the distribution of income: The functional distribution of income; size distribution of income; justice and distribution of income.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- McConnell, Brue and David Macpherson (2015) Contemporary Labour Economics, Eleventh Edition, London, Great Britain.
- Ray Marshall, Vernon M. Briggs Jr. (1989) Labor Economics: Theory, Institutions, and Public Policy, sixth Edition
- Don Bellante and Mark Jackson (1987) Labour Economics, Second Edition, Published by McGraw-Hill, New York, United State of America.
- George J. Borjas (2013) Labour Economics, Sixth Edition, Published by McGraw-Hill, New York, United State of America.

Course Code: ECO 4104**Course Credit: 3****Fourth Year 1st Semester****Course Title: Urban Economics****Course Description**

This course provides students with essential knowledge of urban economy. This course demonstrates how to do plan for urbanization with minimum impact on environment. Also, it covers impact evaluation theories. This course combines theory and practice and hence helps student understand planning a design and its management in a sequential manner.

Course Objectives

The main objective of this course is to help students undertake theoretical, economic and planned approach and develop planning and management skills following the learning by doing approach that helps selecting projects to meet national and organizational objectives.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. design and implement development projects independently for urban people;
2. understand the relationship between urbanization and economic development;
3. achieve clear idea of the social and environmental impacts.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1						✓		
CLO2				✓				
CLO3				✓				

Course Content

CLOs Mapping	Chapters	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction to Urban Economics: Definition of urban economics, major components of urban economics, rationale	4	Lecture, Class	Class participation, assignment,

	for the separate study of urban economics. Existence and development of cities. Nature and causes of urban economic growth, expansion of market in urban economy.		discussion,	Q/A Session
1,2	2. Urban Housing Market: Economics of housing production, demand and supply of housing, urban housing market imperfections, existence of slums, government intervention in housing market and policy implementation.	4	Lecture, Group discussion	Class participation, assignment, Quiz
1,2,3	3. Urban Labor Market: Nature and characteristics of urban labor market, inefficiencies in urban labor market, urban informal and formal labor market.	4	Lecture, Class discussion	Class participation, Q/A Session, assignment
Mid-term written exam: chapter 1,2,3				
1,2,3	4. Urban Poverty and Environment: Nature and extent of urban poverty, strategies of urban poor for surviving and its fall out, policy implication to reduce urban poverty, examples of Bangladesh. Urban Economic Growth and Environmental Quality.	4	Lecture, Class discussion	Class participation, presentation, assignment
1,2,3	5. Urbanization and Economic Development: Differences of urban growth pattern in an advanced economy and a developing economy, relationship between urbanization and economic development, requisites of urbanization for economic development.	4	Lecture, Class discussion,	Class participation, class test, assignment
1,2,3	6. Urban Planning: Meaning of urban planning. Land use controls and zoning: Controlling population growth. Urban growth boundary or service boundary. Building permits. Land use zoning: Types and market effects. Nuisance zoning. Fiscal Zoning. Design Zoning.	4	Lecture, Class discussion,	Class participation, Q/A Session assignment
1,2,3	7. Urbanization and Infrastructural Development: Importance of infrastructure in urbanization, Infrastructure policy for urbanization, Relationship between infrastructural development and urbanization.	4	Lecture, Group, discussion	Class participation, presentation, Quiz
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- A.O. Sullivan, (2019). *Urban Economics*. 9th International edition, McGraw Hill Higher Education.
- Douglas M. Brown, (1974). *Introduction to Urban Economics*, 1st Edition, Academic Press, ELSEVIER.
- Sieg, H. (2020). *Urban Economics and Fiscal Policy*. Princeton University Press.
- Duranton, G., & Strange, W. C. (1986). *Handbook of regional and urban economics: applied urban economics* (Vol. 3). Elsevier.

Course Code: ECO 4105**Course Credit: 3****Fourth Year 1st Semester****Course Title: Computer Applications in Economics****Course Description**

Computer Applications in Economics Course aims to make Microsoft Office (MS Office), Specialized software (like SPSS, EViews, and STATA) and web browsing understandable, relevant and useful for students interested in deepening their knowledge of the way economies work and interact in the social and economic life. This course allows undergraduate students to prepare spreadsheet, draw graph, calculate descriptive statistics, and present report/findings through power point to prepare assignment, research article or even thesis paper in MSS (Master of Social Science) level.

Course Objectives

The major objective of this course is to provide students practical knowledge in the fields of MS Office, specialized social science software and web browsing which will help them analyzing data and preparing and presenting report.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. learn the procedure of typing, drawing graph, calculating descriptive statistics, and preparing power point slide;
2. familiar with specialized software for analyzing and presenting primary as well as secondary data;
3. get access to online resources available in government website, international organizations and universities.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1							✓	
CLO2					✓			
CLO3								✓

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. MS Word and MS PowerPoint: Introduction; Basic operations; Advanced operations; Writing equations; Creating tables and graphs; Other operations; Preparing slides; Slide design; Animation schemes; Presentation of slides; Other functions.	4	Lecture, Class discussion, Lab practical	Class participation, Lab performance, assignment
1,2	2. MS Excel: Introduction; Basic operations; Advanced operations; Creating charts; Other operations. Data Analysis with MS Excel. Application of MS Excel in various topics in micro- and macro-economics.	4	Lecture, Class discussion, Lab practical	Class participation, Quiz, Lab performance
1,2,3	3. Basic Calculations and Presentation of Data using MS Excel: Sorting data, making tables and graphs/diagrams; calculation of descriptive statistics; investment portfolio management with database functions - calculations of costs-benefits; NPV; discount rate; growth rate; etc.	4	Lecture, Class discussion, Lab practical	Class participation, class test, assignment
Mid-term written examination: chapter 1,2,3				
1,2,3	4. Specialized Software - Eviews: EViews- main features, works that can be done, regression analysis, time series analysis- unit root test, cointegration test, causality test.	4	Lecture, Class discussion, Lab practical	Class participation, presentation, Q/A Session
1,2,3	5. Specialized Software - SPSS: Introduction to SPSS; Features of SPSS; Data analysis using SPSS. STATA: Introduction to STATA; Features of STATA; Econometric estimations using STATA.	4	Lecture, Class discussion, application of software	Class participation, presentation, assignment
1,2,3	6. Econometric Estimation using STATA: Estimation of correlation	4	Lecture, Class	Class participation,

	coefficient; regression coefficients; correlation matrix etc.; applying OLS; WLS and GLS methods; testing for autocorrelation; heteroscedasticity and multicollinearity.		discussion, Lab practical	presentation, assignment
1,2,3	7. Internet Access to Online Economic Resources: Uses of Internet in Economics; major gateways for online economic journals; major gateways for online economic data.	4	Lecture, Group discussion Group practice	Class participation, class test, group assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Lab performance	40
Total marks		100

Reading Materials:

1. Microsoft Office 2016: Step by Step
2. EViews User Guide, Version 8.1, 2014
3. SPSS User Guide, Version 22, 2013
4. STATA User Guide, Version 15, 2017

Course Code: ECO 4106

Course Credit: 3

Fourth Year 1st Semester

Course Title: Microfinance Institutions and Policies

Course Description

The course is designed to provide an understanding of the basic elements, concepts and system of microfinance and related policies. This course introduces microfinance as a tool for social and rural development. On completion of this course the students will be able to, recognize various credit lending models, identify role of microfinance institutions and assess the risk associated with microfinance. Major topics covered within this course are general concepts of microfinance, group lending, alternatives to group lending, savings and insurance, gender factor in microfinance, impact analysis and the state of microfinance in Bangladesh.

Course Objective

The basic objective of this course is to develop capacity of the students to explain historical context, issues and challenges and future directions of sustainable and inclusive microfinance program in Bangladesh. The students will be able to design and organize microfinance program and services successfully for different market segments. They would be able to monitor and supervise the microfinance program with effective tools and understand the comprehensive risk management strategies appropriate for their organizations.

Course Learning Outcomes (CLO): At the end of the course, the student will be able to:

1. understand about the general concepts of microfinance.
2. learn and apply the methodology of group lending.
3. develop skills to employ alternatives to group lending when needed.
4. grow insight regarding savings and insurance in microfinance.
5. properly evaluate the impact of different microfinance programs.
6. have knowledge about the microfinance sector of Bangladesh.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2			✓					
CLO3		✓						
CLO4								✓
CLO5								✓
CLO6			✓					

Course Contents:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Introduction: Why intervention in credit market; agency problems of financing the poor- adverse selection, limited liability, moral hazards.	4	Lecture, Class discussion	Class Participation, Q/A session
1,2	2. Group Lending: The group lending methodology, mitigating adverse selection, overcoming moral hazards, evidence on group contacts, limits to group lending.	4	Lecture, Class discussion, problem solving	Class Participation, Quiz
1,3	3. Innovations Beyond Group Lending: Dynamic incentives as a repayment mechanism, threatening to stop lending, progressive lending, competition and incentives, frequent loan installments, complementary incentive mechanisms.	4	Class Participation, presentation	Lecture, group discussion
Mid-term Written Examination: Chapter 1, 2, 3				

1,4	4. Savings and Insurance: Why save, ability to save and desire to save, compulsory savings, voluntary savings, open access and lock-in savings, savings banks potential, micro-insurance, micro loans and risks.	4	Lecture, Class discussion	Class Participation, Q/A session
1	5. Gender Factor: Why women are better customers, why impacts be greater while lending women, limitation of the gender bias.	4	Lecture, Class discussion, problem solving	Class Participation, assignment
1,5	6. Measuring Impacts: How microfinance affects households, evaluation basis, increasing income or decreasing poverty, women's empowerment, health and education.	4	Lecture, group discussion	Class Participation, presentation
1,6	7. Microfinance and Institutions in Bangladesh: Microfinance industry of Bangladesh, suppliers and microfinance products- Grameen Bank; ASA; BRAC, funding of microfinance, regulation and supervision.	4	Lecture, Class discussion, problem solving	Class Participation, class test, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials

- de Aghion B. A. and Morduch, J. (2005). The Economics of Microfinance, The MIT Press Cambridge, Massachusetts London, England.
- Wright, G. A. N. (2000). Microfinance Systems: Designing Quality Financial Services for the Poor, The University Press Limited.
- Khandker, S. R. (1998). Fighting Poverty with Microcredit: Experience in Bangladesh, 1st edition, Oxford University Press.
- Yunus, M. (1998). Banker to the Poor, 1st edition, The University Press Limited.

Course Title: Resource and Environmental Economics II

Course Description

This is an extension of course ECO 4102. Natural resources are crucial elements not only for our everyday life but also for any economic activities at any level of all economies from least developed to developed countries. Understanding and managing natural resource is thus very important for sustainable economic and environmental development which is one of the goals of SDGs that all countries are currently pursuing. The purpose of this course is to explore various aspects of natural resources and the proper role of government in the regulation of the environment. This will help students learn theoretical underpinning and economics insights in evaluating resources with respect to environmental problems that the world is currently facing with special reference to Bangladesh.

Course Objectives

Its aim is to make students acquainted with various topics related to natural resources, namely minerals, fossil fuels, fisheries, forest resources, and regulation of the markets and the impact of resources on economic activities and environment. Another aim of this course is to make students acquainted with fundamentals of economy-environment relationship including optimal pollution level determination, abatement measures and policy instruments.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. apply microeconomic theory to the study of environmental issues;
2. explain the economy-environment nexus;
3. be familiar with environmental management measures in Bangladesh.
4. know the economics of electricity including market power in the industry;

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2				✓				
CLO3				✓				
CLO4				✓				

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Natural resource scarcity: Meaning of resource scarcity; Malthusian and Ricardian scarcity recognition; physical and economic indicators; resource scarcity mitigation-recycling and substitution.	4	Lecture, Class discussion,	Class participation, presentation, assignment
4	2. Electricity: Demand and Supply, Market equilibrium, Price Elasticity and Competitive Markets, Economy of Scale and Natural Monopoly, Tasks Performed in an Efficient Electricity Industry, Electricity	4	Lecture, Class discussion	Class participation, group assignment

	Industry Reforms, Approaches to Reform of the Electricity Industry.			
3	3. Managing natural resources in Bangladesh: Population and Natural resources, Poverty and Natural Resources, Rural Livelihood and Natural Resources; Natural Resources Base: Productivity and Trend of Degradation; New institutional Arrangement for Sustainable Resources Management; Managing Natural Resource & Livelihood: An Analytical Framework; Energy policy of Bangladesh	4	Lecture, Class discussion	Class participation, presentation, Q/A session
Midterm Written Examination: Chapter 1, 2, 3				
1,3	4. Regulating environment through economic instruments: Emission charges/taxes and abatement subsidy: the economics of an emission tax, the level of the charge, emission charges and cost effectiveness, emission charges and non-uniform emissions, emission charges and uncertainty, emission charges and tax revenue, emission charge and enforcement costs; abatement subsidy; deposit-refund system; Marker trading systems: general principles.	4	Lecture, Class discussion, problem solving	Class participation, presentation, assignment
1,2	5. Global environmental issues and agreements: Causes and consequences of acid rain, Causes and consequences of depletion of the ozone layer, Causes and consequences of global warming, international responses to acid rain, ozone depletion and climate change, The economics of atmospheric pollution; the economics of international agreements: bilateral agreements and multilateral agreements.	4	Lecture, Class discussion	Class participation, presentation, assignment
2,3	6. The economics of sustainable development: Sustainable development: a helpful term or a vague and analytical empty concept? The Hartwick–Solow approach to sustainability; The ecological economics approach to sustainability; The safe minimum standard approach to sustainability; Sustainable national income accounting; Operationalizing the principles of sustainability: the case of a company called Interface	4	Lecture, Class discussion	Class participation, class test, assignment

3,4	7. Environment, climate change and development in Bangladesh: International Initiatives on Protection of Environment, Climate Change and Bangladesh, Sustainable Development Goals (SDGs) and Bangladesh, Bangladesh Water Development Board's Activities on Environment Development, Ozone Layer Protection, Natural Disaster Management; environmental management measures in Bangladesh- enforcement and compliance.	4	Lecture, Class discussion	Class participation, Quiz, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Bhattacharyya, S.C., 2011. *Energy economics: concepts, issues, markets and governance*. Springer Science & Business Media.
- Biggar, D.R. and Hesamzadeh, M.R., 2014. *The economics of electricity markets*. John Wiley & Sons.
- Barry C Field; Martha K Field (2017). *Environmental economics an introduction*, 7th edition, New York, NY McGraw-Hill Education.
- Gan, D., Feng, D. and Xie, J., 2013. *Electricity markets and power system economics*. CRC Press.
- Perman, R., Ma, Y., McGilvray, J. and Common, M., 2003. *Natural resource and environmental economics*. Pearson Education.
- Field, C. B., & Field, M. K. (2017). *Environmental Economics. An Introduction*, Mc Graw Hill.

Course Code: ECO 4202

Course Credit: 3

Fourth Year 2nd Semester

Course Title: Financial Investment and Security Analysis

Course Description

This course provides with basic concept of financial economics and their principles. Also, it includes discussion of the efficient market theory, considers risk aversion in the context of utility theory, examines portfolio theory, the capital asset management, covers bond pricing, behavioral finance theory and introduces the top down approach to investment decisions. Subsequently, this course not only allows the students to have a complete knowledge on basic financial economics but also bridges to the higher level studies in economics and finance.

Course Objectives

The major aim objective of this course is to introduce with basic concepts of finance theory as applied to investment analysis and explain theoretical perspectives to understand the current environment for financial investment decisions.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. describe and analyze investment decisions under risk aversion;
2. understand modern portfolio theory;
3. analyze risk of and return from an investment;
4. compare the efficient markets hypothesis and behavioral finance theory;
5. select and execute efficient investment in the stock market.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1		✓						
CLO2	✓							
CLO3		✓						
CLO4			✓					
CLO5		✓						

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1	1. Introduction: The importance of Studying Investments; Understanding the Investment Decision Process; Money Market Securities; Capital Market Securities; Fixed-Income Securities; Equity Securities; Derivative Securities.	4	Lecture, Class discussion,	Class participation, assignment, Q/A Session
4,5	2. Securities Markets and Derivative Securities: The importance of Financial Markets; The Primary Markets; The Secondary Markets; Bond Markets; Derivative Markets. Understanding Options; Some Basic Options Strategies; Option Valuation: The Black-Scholes Model.	4	Lecture, Class discussion, Problem solving	Class participation, assignment, Quiz
1,3	3. Return and Risk: Components of Return; Measuring Returns; Statistics for Returns; Sources of Risk; Measuring Risk; Realized Returns and Risks from Investing; Choice under uncertainty, discounting, and risk aversion.	4	Lecture, Class discussion, problem solving	Class participation, class test, assignment
Mid-term written exam: chapter 1,2,3				

2,3	4. Portfolio Analysis: Introduction to Modern Portfolio Theory; Portfolio Return and Risk; Analyzing Portfolio Risk; Components of Portfolio Risk; Calculating Portfolio Risk; Building a Portfolio Using Markowitz Principles.	4	Lecture, Class discussion, Problem solving	Class participation, presentation, Q/A Session
2,3	5. Asset Pricing Principles: Capital Asset Pricing Model (CAPM); The Equilibrium Return-Risk Trade-off; Arbitrage Pricing Theory (APT) and the Efficient Markets Hypothesis; Integrating the CAPM and APT Models.	4	Lecture, Class discussion	Class participation, presentation, group assignment
4,5	6. The Stock Market Analysis: Understanding the Stock Market; Making Market Forecasts; Technical analysis and Its Framework; Stock Price and Volume Techniques; Technical Indicators, Stock market analysis in the context of Bangladesh.	4	Lecture, Class discussion	Class participation, class test, Quiz
1,3	7. Fixed Income Securities: Bond Yields and Interest Rates; Measuring Bond Yields; Bond Prices; Interest Rate Risk; Immunizing Interest Rate Risk.	4	Lecture, Class discussion	Class participation, presentation, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

- Jones, C. P. (2010). *Investments: Principles and Concepts*, 11th Edition, Wiley Student Edition
- Francis, J. C. (1991). *Investments: Analysis and Management*, 5th Edition, McGraw-Hill International Edition
- Keith, P. (2005). *Finance and Financial Markets*. Palgrave-Macmillan, 2nd Edition.
- Rose, P. S. (2003). *Money and Capital Markets: Financial Institutions and Instruments in a Global Marketplace*, 8th Edition, McGraw Hill.

Course Title: Economic Planning

Course Description

Economic Planning course provides students with theoretical and conceptual tools for the formulation and implementation of economic planning successfully. This course facilitates student's acquisition of a basic body of knowledge concerning necessity of economic planning in underdeveloped countries in the presence of scarce resources and many other social, economic and political limitations. As a development technique/tool, economic planning helps to identify investment pattern and mobilize resources for rapid economic development.

Course Objectives

The major aims of this course is to-

1. familiarize the student with the basic characteristics of underdeveloped countries to select appropriate type of planning;
2. gain an advanced understanding of mobilization of domestic and external resources and investment rate of rapid industrialization and economic development;
3. acquire advanced critical reading, thinking, analytical, research, and writing skills by organizing and carrying out an independent or group research project applying the choice of technique.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. gain knowledge about different types and strategies of economic planning existing in different countries which will help to choose the suitable plan for Bangladesh;
2. formulate independent plan for rapid economic development concerning huge population, less capital formulation and scarce resources;
3. achieve clear picture about the planning technique of Bangladesh including long-term and short-term and perspective planning.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1								✓
CLO2								✓
CLO3			✓					

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Meaning of Planning: Different criteria and characteristics of an underdeveloped country; obstacles to economic development; meaning of economic planning; objectives of economic planning, problems of formulating a good plan; necessity and pre-requisite of successful planning in under-developed countries.	4	Lecture, Class discussion	Class Participation, Q/A session

1,2	2. Types of planning: Planning direction and planning by inducement; financial and physical planning; perspective plan and annual plan; domestic planning and totalitarian planning; rolling and fixed planning; problems of formulating a good plan.	4	Lecture, Class discussion	Class Participation, Quiz
1,2	3. Some observations on socialist and capitalist planning: Scope and advantages of socialist planning; drawbacks of socialist planning; illustrations of planning under socialism; some observations on socialist planning. Advantages and disadvantages of capitalist planning.	4	Lecture, Class discussion	Class Participation, class test, assignment
Mid-term Written Examination: Chapter 1, 2, 3				
2,3	4. Investment Rate of Resource Mobilization: Significance of investment in economic development; investment rate of rapid industrialization; importance of capital-output-ratio; investment rate of development; investment and development strategy; optimum rate of investment; mobilization of domestic savings; mobilization of external resources.	4	Lecture, Class discussion	Class Participation, Q/A session
2	5. Resource Allocation and Investment Pattern: Strategy of investment planning; investment criteria for resource allocation; basic issues in investment pattern; investment pattern in development planning.	4	Lecture, Class discussion	Class Participation, Quiz/class test
3	6. Choice of Technique: Choice of project and project appraisal– meaning and importance; choice of technique– its meaning; labour-intensive vs. capital intensive techniques; input-output analysis; linear programming.	4	Lecture, Class discussion	Class Participation, assignment
2,3	7. Planning for Development in Bangladesh: A brief history of planning in Bangladesh; planning institution of Bangladesh; characteristics of Bangladesh plans; implementation of different five-year plans; perspective plan etc.	4	Lecture, group discussion	Class Participation, presentation
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Griffin K B and John Lawrence Enos (1970), *Planning Development*, Addison-Wesley.

Jhingan, M. L. (2016), *The Economics of Development and Planning*, 40th Revised and Enlarged Edition, Vrinda Publications Ltd.

Hagen, E. E. (1963), *Planning Economic Development*, Irwin Publishing, Homewood, Illinois.

Lewis, W. A. (2004), *Development planning*. Routledge.

Tinbergen, J. (1967), *Development planning*, Weidenfeld and Nicolson.

Govt. of Bangladesh: Various *Five Year Plans*.

Course Code: ECO 4204

Course Credit: 3

Fourth Year 2nd Semester

Course Title: Entrepreneurship Studies

Course Description

This course includes theoretical and practical process of founding, planning, designing, and implementing a new business. It also describes the creative aspects of designing a new business and the process necessary to get it up and running. The ins and outs of that process with marketing major are also major criterion of analysis. Finally, this course also demonstrates the entrepreneurship experiences in Bangladesh and new opportunities.

Course Objectives

The major aim of this course is to make students capable of self-dependent through entrepreneurship skills and establishment process. This course will also provide necessary information about new venture.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. create, identify, and evaluate new business opportunities;
2. interpret theories and models of business and entrepreneurship;
3. develop a financial planning of new business;
4. scale startups to be nationally and globally successful
5. start and build a successful innovation-driven enterprise

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1		✓						
CLO2	✓							
CLO3								✓
CLO4		✓						
CLO5							✓	

Course Content:

CLOs Mapping	Chapter	No. of lectures	Teaching Strategy	Assessment
1,2	1. Introduction: The nature and the importance of entrepreneurship-The concept of “entrepreneurship”, Entrepreneurship, new business formation and innovation, Importance of entrepreneurship to economic development, Risk and uncertainty related to entrepreneurship	4	Lecture, Class discussion	Class participation, Q/A Session, assignment
1,2	2. The basic model of occupational choice- Basic approach to occupational (entrepreneurial) choice, The basic model of entrepreneurial choice (Lucas 1978), The Big Five dimensions of a human personality.	4	Lecture, Class discussion,	Class participation, Quiz, assignment
2,3	3. The role of the social and regional environment for entrepreneurship- Wealth level, business cycle, unemployment, costs, The role of industry characteristics for new business formation, The regional context for entrepreneurship	4	Lecture, Class discussion,	Class participation, presentation, assignment
Mid-term written examination: chapter 1,2,3				
3,4	4. Financial accounting for business entrepreneurship- The financial reporting process, The basic elements of income statement, balance sheet and cash flow, Accounting equation for balance sheet, Illustration and uses of transaction analysis to record business events in the accounting equation format	4	Lecture, Class discussion, problem solving	Class participation, presentation, assignment
1,2	5. Entrepreneurship policy- Implications for economic policies, Knowledge production, ownership and entry, Regulation of labor markets and entry	4	Lecture, Class discussion	Class participation, presentation, assignment

4	6. Entrepreneurship in Bangladesh- Small and Medium Enterprises (SME) sector and Entrepreneurship, Entrepreneurship and women empowerment in Bangladesh, Problems and prospects of entrepreneurship in Bangladesh.	4	Lecture, Class discussion, Field visit	Class participation, Q/A Session, assignment
5	7. Large Scale Entrepreneurship: Innovation-driven enterprise, examples-multinational corporations, networking, communication and international marketing, problems and prospects.	4	Lecture, Class discussion	Class participation, class test, assignment
Final Written Examination: Chapter 4, 5, 6 and 7				

Assessment/Evaluation

Semester End Examination (SEE)	Midterm	20
	Final	30
Continuous Internal Evaluation (CIE)	Attendance	10
	Class test (written/quiz)	10
	Presentation	10
	Assignment	10
	Group work/project/case study/viva	10
Total marks		100

Reading Materials:

Braunerhjelm, P. (2010). Entrepreneurship, Innovation and Economic Growth-past experience, current knowledge and policy implications.

Parker, Simon: The Economics of Entrepreneurship, Cambridge 2009: Cambridge University Press.

Mullins, J.W. (2010). Voices: What to Do Before You Write a Business Plan. Business strategy Review, 21 (4), 92-93. "Strategic Framework: Understanding Blue Ocean Strategy." Cleverism,.N.p.,16 July, 2015

Course Title: Fieldwork and Report Writing

Course Description

This course includes report writing based on primary data. This course is designed in a way that students can survey socio-economic and institutional data at field level and apply econometric tools in analysing the data. Report writing involves rigorous understanding of empirical research and format of writing a research paper.

Course Objectives

The major aim of this course is to make students capable of conducting empirical research independently.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. formulate research questions and identify relevant research objectives;
2. review literature and find gap in the existing research;
3. employ appropriate methodology and use software in analyzing data;
4. interpret and summarize the results of analyzed data.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1						✓		
CLO2						✓		
CLO3					✓			
CLO4					✓			

Assessment/Evaluation

	Total marks
Report writing and submission	200

Course Title: Viva Voce

Course Description

The comprehensive viva voce examination will be held at the end of 8th semester (4th year; 2nd semester) based on the theoretical knowledge, skills and the practices which the students have undergone in the period of four years. It is based on all the courses the students have studied, the field work, social and economic conditions of the country and around the world.

Course Objectives

Objectives of this course are:

1. To acquire knowledge and abilities to face the interview board.
2. To Equip the students with analytical and evaluation abilities to respond the spontaneous queries by the interview board.
3. To prepare the students to present the knowledge, skills and problem solving abilities in the most effective way.

Course Learning Outcome (CLO): At the end of the course, the student will be able to:

1. demonstrate the acquired knowledge of concepts and theories of Economics and their applications;
2. solve the real life problems, make better decisions and assess various policy implications;
4. make better communication and effective presentation of different topics learnt before.

CLO-PLO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	✓							
CLO2		✓						
CLO3							✓	

Assessment/Evaluation

	Marks
Attendance	10
Viva	90
Total marks	100

Reading materials:

Books/study materials of all the semesters and the fieldwork report made by the student.