

# DEPARTMENT OF ECONOMICS

## SCHOOL OF BUSINESS & ECONOMICS

### Curriculum of BS in Economics Effective From Spring 2019

BS in Economics program emphasizes all round competence in economics. Students in this program will have all the necessary skills for jobs in the related fields and ability to successfully complete higher studies in Economics both at home and abroad.

BS in Economics is a 120 credit hour program spread over a period 4 years. These credits are divided into General Education, School & Discipline requirements and Free Electives. General education program augments and rounds out the specialized training students receive in economics and aims to cultivate a knowledgeable, informed, literate human being. A free elective broadens a student's horizon and provides him with a chance to pursue higher studies in other areas.

The following is the curriculum for the BS in Economics degree.

<b>BS in Economics Curriculum</b>		<b>(120 Credits)</b>	
<b>GENERAL EDUCATION COURSES (*Counted in school core)</b>		<b>(36 Cr)</b>	
<b>Languages</b>		<b>(09 Cr)</b>	
<b>Course Code</b>	<b>Title</b>	<b>Credits</b>	<b>Pre-requisite</b>
ENG 103	Intermediate Composition	03	ENG 102 if not waived
ENG 105	Advanced Composition	03	ENG 103
*BUS 251	Business Communication	-	ENG 105
BEN 205	Bangla Language and Literature	03	-
<b>Humanities</b>		<b>(09 Cr)</b>	
<b>Course Code</b>	<b>Title</b>	<b>Credits</b>	<b>Pre-requisite</b>
PHI 101	Introduction to Philosophy	03	-
<b>Two courses from History one of which is mandatory</b>			
HIS 101	Bangladesh History, Culture/	03	-
HIS 102	World Civilization/		
HIS 202	Indo-Bangla History/		
HIS 203	Islamic History/		
HIS 205	World History]		
HIS 103 (Mandatory)	Emergence of Bangladesh	03	-
<b>Social Sciences</b>		<b>(6 Cr)</b>	
<b>Course Code</b>	<b>Title</b>	<b>Credits</b>	<b>Pre-requisite</b>
*ECO 101	Introduction to Microeconomics	-	-
<b>One course in Political Science/Governance/Public Administration</b>			
POL 101	Introduction to Political Science/	3	-
POL 104	Introduction to Governance/		
PAD 201	Introduction to Public Administration		
<b>One course in Sociology/Environment/Geography/Anthropology</b>			
SOC 101- ENV 203/GEO205 ANT101	Introduction to Sociology/ Introduction to Bangladesh Geography/ Introduction to Anthropology	3	-
<b>Computer and Math Skills</b>		<b>(n/a)</b>	
<b>Course Code</b>	<b>Title</b>	<b>Credits</b>	<b>Pre-requisite</b>
*MIS 107	Computer Information Systems	-	-
*ECO 172	Introduction to Statistics	-	-
*ECO 135	Applied Mathematics for Economics I	-	ECO 101
<b>Sciences (with lab)</b>		<b>(12 Cr)</b>	
Three courses from: Biology/Chemistry/Environmental Science/Public Health/Physics/Psychology with one credit lab			
<b>Course Code</b>	<b>Title</b>	<b>Credits</b>	<b>Pre-requisite</b>
BIO 103	Biology I/	12	Check relevant department
CHE 101	Chemistry I/		
ENV 107	Introduction to Environmental Science/		
PBH 101	Introduction to Public Health/		
PHY 107	Physics I/		
PSY 101	Introduction to Psychology		

## BS in Economics Curriculum

SCHOOL CORE <small>[*=counted in school core]</small>			(21 Cr)	
Course Code	Title	Credits	Pre-requisite	
ECO 101	Introduction of Microeconomics	03	-	
ECO 104	Introduction of Macroeconomics	03	-	
BUS 251	Business Communication	03	ENG 105	
MIS 107	Computer Information Systems	03	-	
ECO 135	Applied Mathematics for Economics I	03	ECO 101	
ECO 172	Introduction to Statistics	03	-	
ECO 173	Applied Statistics	03	-	
MATH REQUIREMENTS			(06 Cr)	
Course Code	Title	Credits	Pre-requisite	
MAT 125	Introduction to Linear Algebra	03	BUS 112	
ECO 245	Applied Mathematics for Economics II	03	ECO 101, ECO 104 & ECO 135/BUS 135/MAT 120	
MAJOR REQUIREMENTS			(24 Cr)	
Required Economics major courses			(18 Cr)	
Course Code	Title	Credits	Pre-requisite	
*ECO 135	Applied Mathematics for Economics I	-	ECO 101	
*ECO 172	Introduction to Statistics	-	-	
ECO 201	Intermediate Microeconomic Theory I	3	ECO 101 & ECO 135/BUS 135/MAT 120	
ECO 204	Intermediate Macroeconomic Theory I	3	ECO 104 & ECO 135/BUS 135/MAT 120	
ECO 301	Intermediate Microeconomic Theory II	3	ECO 201 & ECO 135/BUS 135/MAT 120	
ECO 304	Intermediate Macroeconomic Theory-II	3	ECO 204 & ECO 135/BUS 135/MAT 120	
ECO 372	Introduction to Econometrics	3	ECO 173/BUS 173 & ECO 135/BUS 135/MAT 120	
ECO 490	Senior Seminar (Capstone)	3	12 credits ECO courses & ECO 372	
Economics Elective Courses			(12 Cr)	
ECO 317	Money and Banking	3	ECO 101 & ECO 104	
ECO 328	International Economics	3	ECO 101 & ECO 104	
ECO 348	Economy of Bangladesh	3	ECO 328	
ECO 354	Environmental and Natural Resource Economics	3	ECO 201	
ECO 406	History of Economic Thought	3	ECO 101 & ECO 104	
ECO 414	Public Finance	3	ECO 201	
ECO 441	Labor Economics	3	ECO 201	
ECO 443	Health Economics	3	ECO 201	
ECO 415	Economic Development	3	ECO 201, ECO 204	
ECO 492	Special Topics in Economics	3	-	
FREE ELECTIVES			(27 Cr)	
Optional Minor		12		
Courses from any area, university wide		15		

## Course Descriptions of BS in Economics:

Each course is worth 3 credit hours. Textbooks may be changed depending on availability of new editions or new books.

**ECO101 Introduction to Microeconomics:** An introduction to the methods and principles of microeconomics. Topics include: markets; theory of consumer behaviour; production theory; costs of production, and market structure; efficiency in allocation and production. 3 credits.

**Books:**

- 1) Arnold, Roger A. Economics. 9<sup>th</sup> edition. Thompson. South-Western Cengage Learning.
- 2) Mankiw, N. Gregory, Principles of microeconomics, 6<sup>th</sup> edition. South-Western Cengage Learning.

**ECO104 Introduction to Macroeconomics:** Introduces the principles of macroeconomic analysis, its analytical methods with current institutional and empirical issues. Topics include national income accounting; issues relating to unemployment, inflation; determination of output, price level, money and banking, monetary and fiscal policies; budget and trade deficits; and exchange rate. **3 credits**

**Books:**

1. Arnold, Roger A. 2014, Macroeconomics. 11<sup>th</sup> edition. South-Western Cengage Learning, International Edition.
2. Parkin, Michael 2014, Economics, 11<sup>th</sup> edition. Pearson- Global Edition

**ECO135 Applied Mathematics for Economics I:** This course discusses application of some of the mathematical principles in Economics. Topics include Modeling, Curve sketching, Derivative and rules of differentiation, Application of derivative in economics, Calculus of multivariable function and their application in economics. **Prerequisite: ECO 101, 3 credits**

**Books:**

1. Alpha C. Chiang: FUNDAMENTAL METHODS OF MATHEMATICAL ECONOMICS, 4<sup>th</sup> Edition, McGraw –Hill.

**ECO172 Introduction to Statistics:** This is the first introductory course on Statistics. Topics covered: Data collection and presentation, descriptive statistics, probability distributions, sampling distributions and the central limit theorem, point estimation and hypothesis testing, introduction to simple correlation and regression. Pre-requisite: None. 3 credits.

**Books:**

1. Gerald Keller, Statistics for Management and Economics, 10<sup>th</sup> edition
2. Lind Marshal Wathen, Statistical Techniques for Business and Economics, 15<sup>th</sup> edition, McGraw-Hill/Irwin Series
3. Prem Mann, Introductory Statistics, 7<sup>th</sup> edition

**ECO173 Applied Statistics:** This course is an introduction to modern theory and methodology of statistics in the areas of economics and business. Topics include descriptive statistics, probability theory, Sampling theory and methodology, sampling distributions, estimation and hypothesis testing, simple and multiple regression. Software requirement: MITAB or SPSS. 3 credits.

**Books:**

1. Gerald Keller, Statistics for Management and Economics, South-Western Cengage Learning, 9<sup>th</sup> edition, 2012.
2. Newbold Paul, William L. Carlson, and Betty M. Thorne, Statistics for Business and Economics, Pearson, 8<sup>th</sup> edition, 2012.
3. Jaggia Sanjiv, and Alison Kelly, Business Statistics: Communicating with Numbers, McGraw-Hill Irwin, 1<sup>st</sup> edition, 2013.

**ECO201 Intermediate Microeconomic Theory I:** Theory of choice and its application to consumer and producer modelling; theory of production and cost; output and input markets; their structure, equilibrium and efficiency; introduction to general equilibrium analysis. Prerequisite: ECO101, ECO135/BUS135/MAT120. 3 credits

**Books:**

- 1) Pindyck Robert, and Daniel Rubinfeld, Microeconomics, Pearson Prentice Hall, 8<sup>th</sup> edition, 2013.
- 2) Nicholson Walter, and Christopher Snyder, Intermediate Microeconomics and Its Applications, South-Western Cengage Learning, 11<sup>th</sup> edition, 2010.
- 3) Hal Varian, Intermediate Microeconomics: A Modern Approach, W. W. Norton & Company, 8<sup>th</sup> edition, 2010.

**ECO204 Intermediate Macroeconomic Theory I:** This course introduces mainstream macroeconomic theories and modern issues in macroeconomics. Topics include Classical, Keynesian and modern macroeconomics, modern business cycle theory, theories of unemployment and trade-off between inflation and unemployment, money supply and monetary policy, fiscal policy and budget deficit, introduction to growth theory etc. Prerequisite: ECO 104, ECO135/BUS135/MAT120. 3 credits

**Book:**

1. N. Gregory Mankiw, Macroeconomics, 8<sup>th</sup> edition, 2013 International version, Macmillan Publisher.
2. Olivier Blanchard and David R. Johnson, Macroeconomics, 6<sup>th</sup> edition, 2013, Pearson.

**ECO 245 Applied Mathematics for Economics II:** The course is designed to equip students with intermediate level mathematical tools in solving and analyzing economic problems. Topics covered: exponential and logarithmic functions and their application in economics, and Dynamics analysis (integral calculus, first order, autonomous, linear differential and difference equations, simultaneous differential and difference equations). Pre-requisite: ECO 101, ECO 104, ECO135/BUS135 /MAT 120. 3 credits.

**Book:**

- 1.A. C. Chiang and K. Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill, 4<sup>th</sup> edition, 2005

**ECO 301 Intermediate Microeconomic Theory II:** The course is designed to help students analyze microeconomic issues at an advanced level using graphs as well as some mathematical tools developed in some earlier mathematics courses. Topics covered: Theories of consumer and producer behavior including duality, factor markets, imperfect markets, oligopoly, game theory, economics of information and uncertainty, general equilibrium, welfare economics and applications, externalities. Pre-requisite: ECO 201, ECO135/BUS135/MAT120. 3 credits.

**Book:**

- 1.Hal R. Varian , Intermediate Microeconomics – A modern approach, W. W. Norton and Company, 9<sup>th</sup> edition, 2014

**ECO304 Intermediate Macroeconomic Theory II:** The course is designed to help students analyze macroeconomic issues at an advanced level using graphs as well as some mathematical tools developed in some earlier mathematics courses. Topics covered: macroeconomic models, rational expectation, wage theories, growth theories, open economy, inflation, unemployment and Phillips curve, monetary and fiscal policies. Pre-requisite: ECO 204, ECO135/BUS135 /MAT 120. 3 credits.

**Book:**

1. David Romer, Advacned Macroeconomics, McGraw Hill, 4<sup>th</sup> edition, 2011
2. Olivier Blanchard, Macroeconomics, Prentice Hall, 3<sup>rd</sup> edition, 2003

## ECO317

**Money and Banking:** The structure and activity of the financial sector of the economy; role of money in the economy especially its impact on output, employment, and prices; types of financial assets and their uses; interest rates; role played by financial intermediaries; interest-free and new concepts in banking; review of the financial sector of Bangladesh. Pre requisite: ECO101 and ECO104. Equivalent to FIN258. 3 credits. Credits will not be given simultaneously with FIN433.

**Book:**

1. Frederic S. Mishkin, Economics of Money, Banking and Financial Markets, Prentice Hall, 10<sup>th</sup> ed., 2013

## ECO328

**International Economics:** This course provides standard exposition to international trade and payments. Topics include Law of Comparative Advantage, Factor endowment theory of trade, Alternative trade theories and empirical testing, Theory of tariff, Other instruments of commercial policy, Economics of free trade versus protection, Customs union, Balance of payments, Foreign exchange market etc. Prerequisite: ECO 101, ECO 104, ECO201. 3 credits

**Books:**

1. Paul R. Krugman, Maurice Obstfeld, and Marc J. Melitz, International Economics: Theory & Policy, ninth edition, Pearson Education Limited, 2012.
2. Giancarlo Gandolfo, International Trade Theory and Policy, 2<sup>nd</sup> edition, Springer, 2014

## ECO348

**Economy of Bangladesh:** It surveys the socio-economic features and studies of the macro-economic performance of the economy of Bangladesh within the context of socio-political reality; sectoral development and analysis of the sectors in a general equilibrium framework; agriculture, industry, foreign trade and foreign aid in Bangladesh; financial institutions and monetary management as well as fiscal policy in Bangladesh; technology, human resource development and the long term performance of Bangladesh. Prerequisite: ECO 328. 3 credits.

**Book:**

- 1) Abdul Bayes (ed), Bangladesh at 40: Changes and Challenges, 1st edition, A.H. Development Publishing House, 2012.

## ECO354

**Environmental and Natural Resources Economics:** Resource availability, environmental pollution and limits to growth. Theory of optimal use and depletion of renewable, non-renewable and recyclable resources in the context of water, forest, fisheries, and mineral resources. Theory of property rights regimes such as public, private and common property ownership into resource management. Market failure, externality and economics of pollution control. Economics of regional and global pollution. Pollution control policies and their implications for efficiency, equity and growth. Prerequisite: ECO201. 3 credits.

**Books:**

- 1) B.C. Field and M.K. Field: Environmental Economics: An Introduction, 4<sup>th</sup> edition, Irwin -McGraw-Hill Inc. Boston, 2006
- 2) T. Tietenberg, Environmental and Natural Resource Economics, 5<sup>th</sup> edition, Addison-Wesley Longman, 2000. UNEP (2009). The use of Economic Instruments for Environmental and Natural Resource Management: Training Resource Manual (Geneva: Economics & Trade Branch, UNEP).

## ECO372

**Introduction to Econometrics:** It deals with econometric models for estimation of single equation, models; assumptions of the OLS estimation technique and the failures; econometric models with heteroskedasticity, autocorrelations, multicollinearity; dummy variables; specification errors; lagged variables; sufficient statistical and computers skills is useful for conducting econometric analysis of business and economic problems. Prerequisite: ECO173/BUS173, ECO135/BUS135/MAT120. Software Requirement: E-views. 3 credits.

**Books:**

- 1) Stock James, and Mark Watson, Introduction to Econometrics, Pearson, 2<sup>nd</sup> or 3<sup>rd</sup> edition, 2012.
- 2) Wooldridge, Jeffrey M., Introductory Econometrics: A Modern Approach, Cengage Learning, 5<sup>th</sup> edition, 2008.
- 3) Gujarati, Damodar N., Basic Econometrics, McGraw Hill Companies, 4<sup>th</sup> edition, 2004.

**ECO406 History of Economic Thought:** The aim of this course is to study how economic analysis has reached its present state. This course presents the major theoretical and methodological ideas that have shaped and continue to shape contemporary economics keeping a balance between coverage of ideas, individual contributors, different schools, institutions and methods. It covers contributions from pre-classical including ancient and medieval, classical, neoclassical, Marxians, Austrians, Keynesians, post-Keynesians, and Chicago school. In discussing the contributions of different schools, institutions and individuals, the course makes a special treatment of value and distribution. Prerequisite: ECO101 and ECO104. 3 credits.

**Books:**

- 1) Absandro Roncaglia, *the Wealth of Ideas: A History of Economic Thought*. Cambridge University Press, 2005
- 2) Robert B. Ekelund and Robert F. Hebert, *A History of Economic Theory and Method*. 3<sup>rd</sup> edition. McGraw-Hill Publishing Company, 1990.
- 3) Harry Landreth, *History of Economic Theory: Scope, Method and Content*. Houghton Mifflin Company, Boston, 1976

**ECO414 Public Finance:** This course is designed to study the economics of government- how public choices are made, basics of taxation and spending of government. In the initial stage, this course investigates the market failure, necessity of government, government failure and how government choices are made, theoretical aspects of expenditure, and economics of budget. It further looks into the tools of tax analysis including tax equity, tax incidence, different taxes, economic effects of taxes, and tax-structure and its reforms. The course also studies the techniques of fiscal policy and fiscal policy in relation to inflation, employment and poverty. Prerequisite: ECO201. 3 credits.

**Books:**

- 1) Gruber, Jonathan, *Public Finance and Public Policy*, Worth Publishers, 3<sup>rd</sup> edition, 2011.
- 2) Ulbrich, Holley H., *Public Finance in Theory and Practice*, Routledge, 2<sup>nd</sup> edition, 2011.

**ECO441 Labour Economics:** Economics of manpower (human resource) development, economics of labor management, labor organization and regulations. Contents include composition and structure of labor force, determinants of labor market – demand, supply and development, wage determination-application of macroeconomic theory; unionism: collective choice, types of trade unions, growth of unions, structure of collective bargaining, strikes, effects on relative wages, unions and inflation, unions and politics. Prerequisite: ECO201. 3 credits.

**Books:**

- 1) Ehrenberg, Ronald, and Robert Smith, *Modern Labor Economics: Theory and Public Policy*, Addison-Wesley, 11<sup>th</sup> edition, 2012.
- 2) Kaufman, Bruce, and Julie Hotchkiss, *The Economics of Labor Markets*, Thomson, 7<sup>th</sup> edition, 2006.
- 3) Jacobsen, Joyce, and Gilbert Skillman, *Labor Markets and Employment Relationships: A Comprehensive Approach*, Wiley-Blackwell, 1<sup>st</sup> edition, 2004.

**ECO443 Health Economics:** The purpose of this course is to provide an introduction to the principal questions addressed in the context of health economics literature, and to equip students with the basic tools to undertake health policy analysis and research. Major topics include the demand and supply of health and health care services; information asymmetry as it impinges on the contractual arrangements among consumers, insurers and providers; efficient use of health care resources; measurement of health and economic evaluation using cost-effectiveness and cost-utility analysis. Other topics may include assessment of medical technology and policy issues and analyses in some developed as well as developing countries. Prerequisite: ECO201. 3 credits.

**Books:**

- 1) J. E. Hurley, *Health Economics*, 1<sup>st</sup> edition, McGraw-Hill, 2010
- 2) Charles Phelps, *Health Economics*, 4<sup>th</sup> edition, Addison Wesley, 2009
- 3) TS. Folland, A.C. Goodman & M. Stano, *The Economics of Health and Health Care*, Prentice Hall.

**ECO415 Economic Development:** This course is based on the role of public policy in economic development and the political context in which policy decisions are taken. Topics covered include: a historical perspective on the evolution of development economics as an academic discipline; the international dimensions of development; macroeconomic stabilization; financial systems; agriculture and the microeconomics of rural organizations; labour markets and human resource development; environmental degradation; the notion of 'shared growth' and the nexus between democratic governance and development. This course emphasizes a

blend of theory and evidence-with the latter drawn primarily from the experience of Asian economies. Prerequisite: ECO201 and ECO204. **3** credits.

**Books :**

- 1) Michael P. Todaro & Stephen C. Smith, Economic Development, 10<sup>th</sup> edition
- 2) Kaushik Basu(1998), Analytical Development Economics, The MIT Press

**ECO492 Special Topics in Economics:** This is a general topic course to meet the special demand for students which may change from semester to semester depending on the need of students and the availability of expert. **3** credits.

**ECO 490 Senior Seminar (Capstone):** A range of seminars will be offered representing the variety of economics topics and methodologies. Seminars will typically meet once a week, and the emphasis will be on student presentation and discussion of classic and current articles. Each student will be required to author a research paper, and a grade will be assigned based on the quality of the paper and on participation in seminar discussions. Prerequisite: 12 credits ECO courses & ECO 372. **3** credits.