

# DEPARTMENT OF ECONOMICS School of Business and Economics Curriculum of BS in Economics Effective from Spring 2019

Bachelor of Science (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 spreading over a period 4 years. These credits are divided into General Education, School and Discipline Requirements, and Free Electives. General education credits augment and round out the specialized training a student receives in economics and aim to cultivate a knowledgeable, informed, and literate human being. Free elective credits broaden a student's horizon and provide her with a chance to pursue higher studies in other areas.

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

S in Economics	Curriculum	120	120 Credits	
ENERAL EDUCATI	ON COURSES	3	36 Cr	
Languages		(	09 Cr	
Course Code	Title	Credits	Pre-requisite	
BEN 205	Bangla Language and Literature	03	-	
*BUS 251	Business Communication	-	ENG 105	
ENG 103	Intermediate Composition	03	ENG 102 if not waiv	
ENG 105	Advanced Composition	03	ENG 103	
Humanities	1	(	)9 Cr	
Course Code	Title	Credits	Pre-requisite	
PHI101	Introduction to Philosophy	03	-	
Two courses from H	listory one of which is mandatory			
HIS 101	Bangladesh History, Culture/	03	-	
HIS 102	World Civilization/			
HIS 202 HIS 203	Indo-Bangla History/			
HIS 205 HIS 205	Islamic History/ World History			
HIS 103 (Mandatory)		03		
Social Sciences			05 - 06 Cr	
Course Code	Title	Credits	Pre-requisite	
*ECO 101	Introduction to Microeconomics	-	-	
One course in Public	Administration/ Political Science/Governance			
PAD 201	Introduction to Public Administration/	3	-	
POL 101	Introduction to Political Science/			
POL 104	Introduction to Governance			
One course in Anthr	<u> copology/ Environment/Geography/ Sociology</u>			
ANT101	Introduction to Anthropology/	3	-	
ENV 203/GEO205	Introduction to Bangladesh Geography/			
SOC 101	Introduction to Sociology			
Computer and Matl	n Skills			
Course Code	Title	Credits	Pre-requisite	
*ECO 134	Applied Mathematics for Economics I	-	ECO 101	
*ECO 172	Introduction to Statistics	-	-	
*MIS 105	Computer Information Systems	-	-	
Sciences (with lab)			l2 Cr	
	ology/Chemistry/Environmental Science/Public Health/			
Course Code	Title	Credits	Pre-requisite	
BIO 103	Biology I/	12	Check relevant	
CHE 101	Chemistry I/		department	
ENV 107	Introduction to Environmental Science/			
DD11 101				
PBH 101 PHY 107	Introduction to Public Health/ Physics I/			

	21 Cr		urses with asterisk (*) sign are counted in school core here]	
Pre-requisite		Credits	Title	Course Code
ENG 105	EÌ	03	Business Communication	BUS 251
-		03	Introduction of Microeconomics	ECO 101
-		03	Introduction of Macroeconomics	ECO 104
ECO 101	E	03	Applied Mathematics for Economics I	ECO 134
-		03	Introduction to Statistics	ECO 172
-		03	Applied Statistics	ECO 173
-		03	Computer Information Systems	MIS 105
	06 Cr		ENTS	ATH REQUIREM
Pre-requisite	Pre	Credits	Title	Course Code
101, ECO 104 & 0134/ BUS 135/ //AT 120	ECO13	03	Applied Mathematics for Economics II	ECO 244
MAT 116	М	03	Introduction to Linear Algebra	MAT 125
	30 Cr		IENTS	AJOR REQUIREM
	18 Cr		nics Major Courses	Required Econor
Pre-requisite	Pre	Credits	Title	Course Code
ECO 101	E	-	Applied Mathematics for Economics I	*ECO 134
-		-	Introduction to Statistics	*ECO 172
ECO 101 & 0 134/ BUS 135/ MAT 120	ECO 13	3	Intermediate Microeconomic Theory I	ECO 201
ECO 104 & 134/ BUS 135/ MAT 120	EC ECO 13	3	Intermediate Macroeconomic Theory I	ECO 204
ECO 201 & 0 134/ BUS 135/ MAT 120	EC ECO 13	3	Intermediate Microeconomic Theory II	ECO 301
ECO 204 & 0 134/ BUS 135/ MAT 120	EC ECO 13	3	Intermediate Macroeconomic Theory II	ECO 304
O 173/ BUS 173 & 134/ BUS 135/ MAT 120	ECO 1 ECO 13	3	Introduction to Econometrics	ECO 372
lits of ECO courses ECO 372		3	Senior Seminar (Capstone)	ECO 490
	12 Cr		ve Courses	Economics Electi
requisite	Pre-req	Credits	Title	Course Code
101 & ECO 104	ECO 10	3	Money, Banking and Financial Markets	ECO 317
101 & ECO 104	ECO 10	3	International Trade Theory and Policy	ECO 328
ECO 328	E	3	Economy of Bangladesh	ECO 349
ECO 201	E	3	Environmental and Natural Resources Economics	ECO 354
101 & ECO 104	ECO 10	3	History of Economic Thought	ECO 406
ECO 201	E	3	Public Finance	ECO 414
201 & ECO 204	ECO 20	3	Economic Development	ECO 415
ECO 201	E	3	Labor Economics	ECO 441
ECO 201	E	3	Health Economics	ECO 443
-		3	Special Topics in Economics	ECO 492
	27 Cr			REE ELECTIVES
	12			-
			area, university wide	Optional Minor

## **Description of ECO Courses in BS in Economics**

## **ECO 101: Introduction to Microeconomics**

This course introduces the methods and principles of microeconomics. Topics include markets, theory of consumer behavior, production theory, cost of production, market structures, and efficiency in allocation and production. Pre-requisite: None. 3 credits.

### **ECO104: Introduction to Macroeconomics**

This course introduces the principles of macroeconomic analysis, and analytical methods with current institutional and empirical issues. Topics include national income accounting, issues relating to unemployment and inflation, determination of output and price level, money and banking, monetary and fiscal policies, budget and trade deficits, and exchange rate. Pre-requisite: None. 3 credits.

## ECO 134: 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. Pre-requisite: ECO101. 3 credits.

#### **ECO 172: Introduction to Statistics**

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

#### **ECO 173: 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, and simple and multiple regression. Software requirement: MITAB or SPSS. Pre-requisite: ECO 172. 3 credits.

## ECO 201: Intermediate Microeconomic Theory I

This course introduces theory of choice and its application to consumer and producer modeling. Topics include theory of production and cost, output and input markets, their structure, equilibrium and efficiency, and introduction to general equilibrium analysis. Pre-requisite: ECO101, ECO 134. 3 credits.

#### ECO 204: 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, and introduction to growth theory. Pre-requisite: ECO 101, ECO 104. 3credits.

## ECO 244: Applied Mathematics for Economics II

This course is designed to equip students with intermediate level mathematical tools in solving and analyzing economic problems. Topics include exponential and logarithmic functions and their application in economics, and dynamic analysis (integral calculus, first order, autonomous, linear differential and difference equations, simultaneous differential and difference equations). Pre-requisite: ECO 101, ECO 104, ECO134/BUS135 /MAT120. 3 credits.

#### ECO 301: Intermediate Microeconomic Theory II

This 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 include 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, and externalities. Pre-requisite: ECO 201, ECO134/BUS135/MAT120. 3 credits.

#### ECO 304: Intermediate Macroeconomic Theory II

This 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, and monetary and fiscal policies. Pre-requisite: ECO 204, ECO134/BUS135/MAT 120. 3 credits.

#### ECO 317: Money, Banking and Financial Markets

This course discusses 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, and review of the financial sector of Bangladesh. Pre-requisite: ECO101, ECO104. Equivalent to FIN258. 3 credits. Credits will not be given simultaneously with FIN433.

#### ECO 328: International Trade Theory and Policy

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, and foreign exchange market. Pre-requisite: ECO 101, ECO 104, ECO201. 3 credits.

#### ECO 349: Economy of Bangladesh

This course surveys the socio-economic features and studies of the macro-economic performance of the economy of Bangladesh within the context of socio-political reality. It discusses sectoral development and analysis of the sectors in a general equilibrium framework. Topics include agriculture, industry, foreign trade, foreign aid, financial institutions and monetary management, fiscal policy, technology, human resource development and the long-term performance of Bangladesh. Pre-requisite: ECO101, ECO104. 3 credits.

#### ECO 354: Environmental and Natural Resources Economics

This course focuses on topics such as 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. Pre-requisite: ECO201, ECO204. 3 credits.

#### **ECO 372: Introduction to Econometrics**

This course deals with econometric models for estimation of single equation models; assumptions of the OLS estimation technique and the failures; econometric models with heteroskedasticity, autocorrelations, and multicollinearity; dummy variables; specification errors; and lagged variables. Sufficient statistical and computer skills are useful for conducting econometric analysis of business and economic problems. Pre-requisite: ECO173, MAT250. 3 credits.

#### **ECO 406: History of Economic Thought**

This course aims 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. Pre-requisite: ECO201, ECO204. 3 credits.

#### **ECO 414: Public Finance**

This course is designed to study the economics of government- how public choices are made, and 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. Pre-requisite: ECO101, ECO201. 3 credits.

#### **ECO 415: 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 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; and 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. Pre-requisite: ECO201, ECO204. 3 credits.

#### **ECO 441: Labour Economics**

Contents of this course 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, and unions and politics. Pre-requisite: ECO201. 3 credits.

#### **ECO 443: 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; and 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. Pre-requisite: ECO201. 3credits.

#### ECO 490: Senior Seminar (Capstone)

In this course, 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. Pre-requisite: 12 credits ECO courses & ECO 372. 3 credits.

#### **ECO 492: 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 experts. 3 credits.