



**Royal School of Humanities and Social Science  
(RSHSS)**

**Department of Economics**

**Learning Outcomes-based Curriculum Framework (LOCF) for  
Undergraduate Programme in**

**BA- (Honours) in Economics**

**w.e.f. 2022-23**

## Table of Contents –

Sl. No.	Contents	Page no.
1	PREAMBLE	3
2	Introduction	4
3	Approach to Curriculum Planning	4-5
4	Aims of Bachelor's Degree Programme in BA-Honours in Economics	6
5	Graduate Attributes	6-7
6	Qualitative Descriptors and Programme Outcomes	8-9
7	Teaching Learning Methodologies	10
8	Assessment and Outcome Measurement Methods	10-11
9	Programme Structure	12-14
10	Detailed Syllabus	15-70

## 1. Preamble

The Assam Royal Global University is upgrading its undergraduate programmes in the line of **Learning Outcomes-based Curriculum Framework (LOCF)**. Higher education plays an extremely important role in promoting human as well as societal well-being and in developing India as envisioned in its Constitution - a democratic, just, socially conscious, cultured, and humane nation upholding liberty, equality, fraternity, and justice for all. Higher education significantly contributes towards sustainable livelihoods and economic development of the nation.

A holistic and multidisciplinary education would aim to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner. Such an education will help develop well-rounded individuals that possess.

As India moves towards becoming a knowledge economy and society, more and more young Indians are likely to aspire for higher education, this syllabus aims at making higher education multidisciplinary learning process. In other words, the curriculum will be flexible, it will allow students to take up creative subject-combinations.

The new curriculum of BA-Honours in Economics under The Assam Royal Global University will be in the line of **Learning Outcomes-based Curriculum Framework (LOCF)** – more flexible, multi-disciplinary and holistic.

## **1.1 Introduction:**

**Learning Outcomes-based Curriculum Framework (LOCF)** aims at a new and forward-looking Vision for India's Higher Education System. At the societal level, higher education must enable the development of an enlightened, socially conscious, knowledgeable, and skilled nation that can find and implement robust solutions to its own problems. Higher education must form the basis for knowledge creation and innovation thereby contributing to a growing national economy. The purpose of quality higher education is, therefore, more than the creation of greater opportunities for individual employment. It represents the key to more vibrant, socially engaged, cooperative communities and a happier, cohesive, cultured, productive, innovative, progressive, and prosperous nation.

This policy envisions a complete overhaul and re-energising of the higher education system to overcome these challenges and thereby deliver high-quality higher education, with equity and inclusion-- moving towards a more multidisciplinary undergraduate education, revamping curriculum, pedagogy, assessment, and student support for enhanced student experiences etc. A university will mean a multidisciplinary institution of higher learning that offers undergraduate and graduate programmes, with high quality teaching, research, and community engagement. Looking at all these new concepts and progress, the detailed syllabus of BA (H) – Economics has been designed and decided to be implemented from the academic session 2022-23.

## **1.2 Vision**

The develop outstanding Economics programs with the aim of imparting theoretical and applied knowledge of Economics.

## **1.3 Mission**

- To prepare students for research-based education at regional, national, and international level.
- To enhance employability and entrepreneurship.

## **1.4 Approach to Curriculum Planning**

The fundamental premise underlying the learning outcomes-based approach to curriculum planning and development is that higher education qualifications such as a bachelor's degree (Hons) programmes are earned and awarded on the basis of (a) demonstrated achievement

of outcomes (expressed in terms of knowledge, understanding, skills, attitudes and values) and (b) academic standards expected of graduates of a programme of study.

The expected learning outcomes are used as reference points that would help formulate graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes which in turn will help in curriculum planning and development, and in the design, delivery, and review of academic programmes.

Learning outcomes-based frameworks in any subject must specify what graduates completing a particular programme of study are (a) expected to know, (b) understand and (c) be able to do at the end of their programme of study. To this extent, LOCF in Economics is committed to allowing for flexibility and innovation in (i) programme design and syllabi development by higher education institutions (HEIs), (ii) teaching-learning process, (iii) assessment of student learning levels, and (iv) periodic programme review within institutional parameters as well as LOCF guidelines, (v) generating framework(s) of agreed expected graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes.

The key outcomes that underpin curriculum planning and development at the undergraduate level include Graduate Attributes, Qualification Descriptors, Programme Learning Outcomes, and Course Learning Outcomes.

The LOCF for undergraduate education is based on specific learning outcomes and academic standards expected to be attained by graduates of a programme of study. However, an outcome-based approach identifies moves way from the emphasis on what is to be taught to focus on what is learnt by way of demonstrable outcomes. This approach provides greater flexibility to the teachers to develop—and the students to accept and adopt—different learning and teaching pedagogy in an interactive and participatory ecosystem. The idea is to integrate social needs and teaching practices in a manner that is responsive to the need of the community. HEIs, on their turn, shall address to the situations of their students by identifying relevant and common outcomes and by developing such outcomes that not only match the specific needs of the students but also expands their outlook and values.

### **1.5 Nature and Extent of bachelor's degree Programme in Economics (Honours)**

A bachelor's degree in economics with Research is a 3-year degree course which is divided into 8 semesters as under.

Bachelor's Degree (Honours) is a well-recognized, structured, and specialized graduate level qualification in tertiary, collegiate education. The contents of this degree are determined in

terms of knowledge, understanding, qualification, skills, and values that a student intends to acquire to look for professional avenues or move to higher education at the postgraduate level.

Bachelor's Degree (Honours) programmes attract entrants from the secondary level or equivalent, often with subject knowledge that may or may not be directly relevant to the field of study/profession. Thus, BA (Honours) Course in Economics aims to equip students to qualify for joining a profession or to provide development opportunities in particular employment settings. Graduates are enabled to enter a variety of jobs or to continue academic study at a higher level.

### **1.6 Aims of bachelor's degree (Honours) Programme in Economics:**

The overall objectives of the Learning Outcomes-based Curriculum Framework (LOCF) for BA-Honours degree in Economics are-

- To impart the basic knowledge of Economic theories, principles, models, and laws of traditional and modern economics.
- To impart more multi-disciplinary and holistic course curriculum.
- To develop the learners providing research-based knowledge.
- To develop the learner into competent and efficient in the field of Economics.
- To empower learners by communication, professional and life skills.
- To prepare socially responsible academicians, researchers, professionals with global vision.
- To provide and adapt curricula that prepare our graduates for employment and further study as economists.
- To provide the students with the opportunity to pursue courses that emphasize quantitative and theoretical aspects of Economics.
- To provide students with the opportunity to focus on applied and policy issues in Economics.
- To provide programmers that allow the students to choose from a wide range of economic specialization.

### **1.7 Graduate Attributes**

- 1. Disciplinary knowledge and Understanding:** Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of BA-Honours Programme in economics. It will provide basic knowledge of Micro and Macroeconomics,

use of mathematics in Economics, solving economic issues through research and concepts and knowledge of other courses relating to core areas of study.

2. **Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally is very essential for a student.
3. **Critical thinking:** A student will be capable of using analytic thought to a body of knowledge and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence. Faculty members organize Group Discussion, Power Point presentation, Debate, Quiz, seminars, lecture series etc regularly to develop this quality among the students.
4. **Problem solving:** this course is designed to develop capacity to extrapolate from what a student has learned and apply their competencies to solve different kinds of non-familiar problems and apply one's learning to real life situations.
5. **Analytical reasoning:** Economics is a subject of reasoning that enhance a student's ability to evaluate the reliability and relevance of evidence and can identify logical flaws in the arguments of others. Moreover, the students can analyse and synthesise data from a variety of sources and can draw valid conclusions and support them with evidence.
6. **Research-related skills:** Economics is research-based subject. Students are asked prepare project report regularly which brings about the sense of inquiry and capability for asking relevant/appropriate questions. They can also develop the ability to recognise cause-and-effect relationships and can draw conclusions from data.
7. **Cooperation/Teamwork:** Capable of working effectively in diverse teams in both classroom and field-based situations.
8. **Information/digital literacy:** Capable of using computers in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources and use appropriate software for analysis of data.
9. **Moral and ethical awareness/reasoning:** Capable of conducting their work with honesty and precision thus avoiding unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, and appreciating environmental and sustainability issues.
10. **Lifelong learning:** Capable of self-paced and self-directed learning aimed at personal development, meeting economic, social, and cultural objectives, and adapting to changing trades and demands of workplace through knowledge/skill development/re-skilling.
11. **Environmental Conservation and Sustainability:** Realise that environment and humans are dependent on one another and to know about the responsible management of our ecosystem for survival and for the well-being of the future generation as well.

## **1.8 Qualification Descriptors for a bachelor's degree programme in Economics**

The qualification descriptors for a bachelor's degree programme in Economics may include the following:

- Demonstrate
  - (i) A systematic or coherent understanding of the academic field of Economics, its different learning areas and applications, and its linkages with related disciplinary areas/subjects.
  - (ii) Procedural knowledge that creates different types of professionals related to Economics area of study, including research and development, teaching and government and public service.
  - (iii) Skills in areas related to specialization area relating the subfields and current developments in the academic field of Economics.
- Use knowledge, understanding and skills required for identifying problems and issues relating to Economics.
- A keen interest in research and the study of Economic issues
- Meet one's own learning needs, drawing on a range of current research and development work and professional materials.
- Demonstrate subject-related and transferable skills that are relevant to economic related issues our day-to-day activities.
- Develop analytical power and logical approach to problem-solving.
- Good oral and written communication abilities
- Able to work independently or with team members.

## **1.9 Programme learning outcomes relating to B.A. (Honours) degree programme in Economics**

The students graduating with the Degree B.A (H) in Economics will be able to:

### **PO 1: Disciplinary Knowledge**

- Attain domain knowledge for understanding the origin and the developments in the respective disciplines.

### **PO 2: Communication Skills**

- Acquire the essential language skills and job skills, to speak flawlessly, to write effectively and to create works of art/texts to get placed in lucrative positions.

### **PO 3: Critical Thinking**



- Develop the ability of conceptualizing knowledge gathered through the learning processes.

**PO 4: Problem Solving Skills**

- Develop interpretation skill, analytical skill, and research related skills to analyse socio-political, socio-religious and the economic conditions prevail through the ages globally and to adopt the solutions suggested to end up social / economic / political issues.

**PO 5: Analytical Reasoning**

- Develop the ability to collect information and to thoroughly analyze that information.

**PO 6: Digital Literacy**

- Get access to digital resources, to use them judiciously for updating of knowledge and to engage in remote/ independent learning.

**PO 7: Research-related skills**

- Economics is research-based subject. Students are asked prepare project report regularly which brings about the sense of inquiry and capability for asking relevant/appropriate questions.

**PO 8: Moral and Ethical Values / Multicultural Competence**

- Imbibe moral and ethical values for upholding uprightness, solidarity and sovereignty to live a dignified life.
- Comprehend the local, national, and global principles / policies / perspectives dealt with in texts to foster global peace.

**PO 9: Cooperation/Teamwork**

- Capable of working effectively in diverse teams in both classroom and field-based situations.

**PO 10: Self-Directed Learning / Lifelong Learning**

- Prepare them for personal and professional effectiveness and to practise it throughout the life to become law-abiding and productive citizens.

**PO 11: Environmental Conservation and Sustainability**

- Realise that environment and humans are dependent on one another and to know about the responsible management of our ecosystem for survival and for the well-being of the future generation as well.

## Programme Specific Outcomes (PSO)

*Upon completion of B.A (H) Economics Degree Programme, the students will be able to:*

PSO1	An ability to understand economic theories and functioning of basic microeconomic and macroeconomic systems.
PSO2	Acquaint with collection, organization, tabulation and analysis of empirical data. Ability to use basic mathematical and statistical tools to solve real economic problems
PSO 3	Acquaint with basic and applied econometric tools and methods used in economics. The aim of this course is to provide a foundation in applied econometric analysis and develop skills required for empirical research in economics.
PSO 4	Delineate the developmental policies designed for developed and developing economics.

### 1.10 Teaching Learning Process

Teaching and learning in this programme involve classroom lectures as well tutorials.

It allows-

- The tutorials allow a closer interaction between the students and the teacher as each student gets individual attention.
- Written assignments and projects submitted by students.
- the project-based learning
- Group discussion
- Home assignments
- Quizzes and class tests
- PPT presentations, Seminars, interactive sessions
- Socio-economic survey
- Co-curricular activity etc.
- Industrial Tour or Field visit

### 1.11 Assessment Methods

#### Theory Papers

Methods	Weightage
Semester End Examination	70%
Internal Assessment	30%
<b>Total</b>	<b>100%</b>

Internal assessment is based on – Mid-semester Examination, Class test, Assignment, Project, Viva-voce, attendance of the student, seminar, group discussion, field work etc.

	<b>Component of Evaluation</b>	<b>Marks</b>	<b>Frequency</b>	<b>Code</b>	<b>Weightage (%)</b>
<b>A</b>	<b>Continuous Evaluation</b>				
i	Case Discussion / Presentations /Analysis	Combination of any three from (i) to (v) with 5 marks each	1-3	C	25%
ii	Home Assignment		1-3	H	
iii	Project/Portfolio/ Practical*		1	P	
iv	Seminar		1-2	S	
v	Viva-Voce		1-2	V	
vi	Quiz/Class Test(s)/MSE		MSE shall be of 10 marks	1-3	
vii	Attendance	Attendance shall be of 5 marks	100%	A	5%
<b>B</b>	<b>End–Semester Examination</b>		1	ESE	70%
	<b>Total</b>				<b>100%</b>

## Learning Outcomes of different types of courses for BA (Honours) in Economics

BA (H) Economics
Programme Structure

1st semester							
Sl.No.	Subject Code	Names of subjects	L	T	P	C	TCP
<b>Core Subjects</b>							
1	ECO182C101	Micro Economics-I	4	0	0	4	4
2	ECO182C102	Macro Economics-I	4	0	0	4	4
3	ECO182C103	Quantitative Methods in Economics-I	4	0	0	4	4
<b>Ability Enhancement Compulsory Courses (AECC)</b>							
4	CEN982A101	Communicative English-I	1	0	0	1	1
5	BHS982A104	Behavioural Science-I	1	0	0	1	1
<b>Skill Enhancement Courses (SEC)</b>							
6	ECO182S121	Data Collection and Analysis - I	2	0	4	2	4
<b>Value Added Courses (VAC)</b>							
7		Will select one course from a basket of courses	2	0	0	2	2
<b>Generic Elective</b>							
8	ECO182G101	Micro Economics	3	0	0	3	3
9	ECO182G102	Banking Practices	3	0	0	3	3
						Total credits	<b>24</b>

2nd Semester							
Sl.No.	Subject Code	Names of subjects	L	T	P	C	TCP
<b>Core Subjects</b>							
1	ECO182C201	Micro Economics-II	4	0	0	4	4
2	ECO182C202	Macro Economics-II	4	0	0	4	4
3	ECO182C203	Quantitative Methods in Economics-II	4	0	0	4	4
<b>Ability Enhancement Compulsory Courses (AECC)</b>							
4	CEN982A201	Communicative English-II	1	0	0	1	1
5	BHS982A204	Behavioural Science-II	1	0	0	1	1
<b>Skill Enhancement Courses (SEC)</b>							
6	ECO182S221	Data Collection and Analysis - I	0	0	4	2	4
<b>Value Added Courses (VAC)</b>							
7		Will select one course from a basket of courses	2	0	0	2	2
<b>Generic Elective</b>							
8	ECO182G201	Macro Economics	3	0	0	3	3
9	ECO182G202	Fundamentals of Financial Economics	3	0	0	3	3
						Total credits	<b>24</b>

3rd semester							
Sl.No.	Subject Code	Names of subjects	L	T	P	C	TCP
<b>Core Subjects</b>							
1	ECO182C301	Public Finance-I	4	0	0	4	4
2	ECO182C302	Statistical Method	4	0	0	4	4
3		Internship/Field Study/Projects	0	0	0	4	12
<b>Ability Enhancement Compulsory Courses (AECC)</b>							
3	CEN982A301	Communicative English-III	1	0	0	1	1
4	BHS982A302	Behavioural Science-III	1	0	0	1	1
<b>Discipline Specific Electives (Select one subject)</b>							
5	ECO182D301	Money and Banking	4	0	0	4	4
6	ECO182D302	Demography	4	0	0	4	4
<b>Skill Enhancement Courses (SEC)</b>							
7	ECO182S321	Financial Economics	0	0	4	2	4
<b>Value Added Courses (VAC)</b>							
8		Will select one course from a basket of courses	2	0	0	2	2
<b>Generic Elective</b>							
9	ECO182G301	Public Finance	3	0	0	3	3
10	ECO182G102	Banking Practices	3	0	0	3	3
<b>• One SEC and One VAD may be offered in lieu of Internship (if Internship is Optional)</b>							
Total credits							<b>24</b>

4 <sup>th</sup> Semester							
Sl.No.	Subject Code	Names of subjects	L	T	P	C	TCP
<b>Core Subjects</b>							
1	ECO182C401	Public Finance-II	4	0	0	4	4
2	ECO182C402	Elementary Econometrics	4	0	0	4	4
<b>Ability Enhancement Compulsory Courses (AECC)</b>							
3	CEN982A401	Communicative English-IV	1	0	0	1	1
4	BHS982A402	Behavioural Science-IV	1	0	0	1	1
<b>Discipline Specific Electives (Select one subject)</b>							
5	ECO182D401	Financial System	4	0	0	4	4
6	ECO182D402	Agriculture and Resource Economics	4	0	0	4	4
<b>Skill Enhancement Courses (SEC)</b>							
7	ECO182S421	Budgeting and Budget Analysis	0	0	4	2	4
<b>Value Added Courses (VAC)</b>							
8		Will select one course from a basket of courses	2	0	0	2	2
<b>Generic Elective</b>							
9	ECO182G301	Indian Economy	3	0	0	3	3
	ECO182G202	Fundamentals of Financial Economics	3	0	0	3	3
Total credits							<b>24</b>

5 <sup>th</sup> Semester							
Sl.No.	Subject Code	Names of subjects	L	T	P	C	TCP
<b>Core Subjects</b>							
1	ECO182C501	Indian Economy	4	0	0	4	4
2	ECO182C502	Development Economics	4	0	0	4	4
3		Internship/Field Study/Projects	0	0	0	6	18
<b>Ability Enhancement Compulsory Courses (AECC)</b>							
4	CEN982A501	Communicative English-V	1	0	0	1	1
5	EVS982A502	Environmental Studies & Sustainable Development I	1	0	0	1	1
<b>Discipline Specific Electives (Select two Paper)</b>							
6/7	ECO182D501	Welfare Economics	4	0	0	4	4
6/7	ECO182D502	Assam and North East Economy	4	0	0	4	4
6/7	ECO182D503	Human Resource Development	4	0	0	4	4
6/7	ECO182D504	Indian Economics- Pre-Independence Period	4	0	0	4	4
<b>Value Added Courses (VAC)</b>							
8		Will select one course from a basket of courses	2	0	0	2	2
						Total credits	<b>26</b>

6 <sup>th</sup> semester							
Sl.No.	Subject Code	Names of subjects	L	T	P	C	TCP
<b>Core Subjects</b>							
1	ECO182C601	International Economics	4	0	0	4	4
2	ECO182C602	Environmental Economics	4	0	0	4	4
<b>Ability Enhancement Compulsory Courses (AECC)</b>							
3	CEN982A601	Communicative English-V	1	0	0	1	1
4	EVS982A602	Environmental Studies & Sustainable Development I	1	0	0	1	1
<b>Discipline Specific Electives (Select two papers)</b>							
5/6/7	ECO182D601	Applied Econometrics	4	0	0	4	4
5/6/7	ECO182D602	Economics of Health and Education	4	0	0	4	4
5/6/7	ECO182D603	History of Economic Thought	4	0	0	4	4
5/6/7	ECO182D604	Labour Economics	4	0	0	4	4
5/6/7	ECO182D605	Industrial Economics	4	0	0	4	4
<b>Skill Enhancement Courses (SEC)</b>							
8	ECO182S601	Advanced Microsoft Excel	0	0	4	2	4
<b>Value Added Courses (VAC)</b>							
9		Will select one course from a basket of courses	2	0	0	2	2
						Total credits	<b>26</b>

## Detailed Syllabus

Semester – I
<b>Paper I/Subject Name: Microeconomics-I</b> <b>Subject Code: ECO182C101</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory (Internal – 30% and Semester End Examination- 70%)</b>

### Course Objective:

The purpose of this course (Microeconomics) is to give students a thorough understanding of the principles of Economics to make the students acquaint with the glorious background of origin, definitions, and scope of Economics: to familiarize the students with Consumer Behaviour, Production Functions and Allocation of Scare Resources and provide them a proper understanding of cost, revenue, scale of returns and the different Market Structures.

### Course Outcomes (CO):

On completion of this course students will be expected to -

1. **Recall** basic concepts like-definition of Economics, Subject matters, economic problems etc. (BT level 1)
2. **Explain** how to gauge consumer behaviour, convert desire into demand, create supply and strike equilibrium between the two. (BT level 2)
3. **Illustrate** economic use of scarce resources, their optimal use in different market conditions, price, and output determinations. (BT level 2)
4. **Apply** the behavioural knowledge of utilizing scarce resources in their day-to-day life. (BT level 3)

### Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
<b>I.</b>	<b>Introduction:</b> Definition of economics, Basic concepts- Micro and Macro-economics, Subject matter of micro economics, Basic Concepts: Goods, Utility, Value and Price, Stock and flow and optimization. Economic Problems: Scarcity and choice, Central problems of an economy-what to produce, how to produce and for whom to produce, Production possibility curve (PPC). Variable: dependent and independent, endogenous and exogenous. Economic Statics, dynamic and comparative static equilibrium	<b>12</b>
<b>II.</b>	<b>Supply and Demand-</b> meaning, demand and supply function, individual demand and supply schedule, derivation of market	<b>12</b>

	<p>demand and supply schedule, shifting of demand and supply curves, Laws of demand and supply, their exceptions.</p> <p><b>Elasticity of demand</b> -price, income, and cross elasticity, point and arc elasticity, methods of measuring price elasticity of demand, degrees and types of price elasticity of demand, factors affecting price elasticity of demand.</p> <p><b>Elasticity of supply:</b> meaning and measurement</p> <p>Consumers' surplus and Producers' surplus.</p>	
<b>III.</b>	<p><b>Consumer's Behaviour-</b></p> <p>(i) Utility-cardinal approach, Law of equi-marginal utility, derivation of demand curve, criticisms of cardinal approach.</p> <p>(ii) Ordinal approach: Indifference curves- derivation and properties; budget constraint and budget line; Consumer's equilibrium- price effect, income effect and substitution effect (Hicks and Slutsky); normal and Giffen goods; Separation of price effect into income and substitution effect. Derivation of demand curve from PCC, Comparison between Cardinal and Ordinal Approaches.</p> <p>(iii) Engel curve; Revealed preference theory.</p>	<b>12</b>
<b>IV</b>	<p><b>Theory of Production:</b> Production function-definition and types; Total Product, Average Product and Marginal Product, Law of variable proportions, Isoquants and Iso-cost line, Least cost combination, Expansion Path, Returns to Scale, Least cost Combination.</p> <p><b>Cost function-</b> money cost, real cost, opportunity cost, Explicit and implicit cost.</p> <p>Short run cost- Fixed and variable costs, AFC, AVC, AC and Marginal Cost (MC), Relationship between AC and MC.</p> <p>Long run cost: Derivation of LAC, Concept of industries and LAC, Economies and diseconomies of scale</p> <p>Revenue functions- TR, AR, and MR, Elasticity of demand and AR and MR</p>	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- Hall R. Varian (2010); *Intermediate Microeconomics*; 8<sup>th</sup> edition, 2010, Springer (India) Pvt. Ltd.

**Reference Books:**

- Koutsiyannis A; *Modern Micro Economic Theory*; 6<sup>th</sup> edition; 2012; Pearson; Delhi
- Mankiw, N. Gregory; *Principles of Economics*; 6<sup>th</sup> edition; 2007; Thompson; London



- *Advanced Economic Theory*; Ahuja, H. L.: 22<sup>nd</sup> edition; 2014; S Chand & Company; New Delhi.

<b>Semester – I</b>
<b>Paper I/Subject Name: Macro Economics-I</b> <b>Subject Code: ECO182C102</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory (Internal – 30% and Semester End Examination- 70%)</b>

### Course Objective:

The objective of the course is to introduce students to understand the aggregative behaviour of the economy. They will also learn about how to estimate national income. Keynesian theory plays an important role in macroeconomic theory. Thus, another objective of this course is to give knowledge of Keynesian economics.

### Course Outcomes:

On completion of this course students will be expected to –

1. **Recall** the methods of computing national income accounting and basic concepts known as aggregates of national income like- GDP, GNP, NNP, NDP, personal income etc. (BT Level 1)
2. **Explain** classical macro-economic theory, causes of The Great Depression and advent of Keynesian economics. (BT Level 2)
3. **Illustrate** Keynesian economics- aggregate demand and supply, their role in determining equilibrium employment and income. (BT Level 2)

### Detailed Syllabus:

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>National Income:</b> Circular flow of income in 2, 3 and 4 sector economy. Concepts of national Income: GDP, GNP, NNP and NDP at factor cost and market price; Private Income, Personal income and disposable income, Real and Nominal GDP; National income and economic welfare. Green GDP, real versus nominal GDP; price indices; national income accounting for an open economy	<b>12</b>
<b>II.</b>	<b>The classical system:</b> Say's law of market, rate of interest determination, the concept of full-employment, Wage-Price flexibility, classical theory of employment, Keynes's critique of classical view.	<b>12</b>
<b>III.</b>	<b>Keynesian Economics-I:</b> Effective demand, Aggregate demand and aggregate supply, Underemployment equilibrium. Determination of Income in a closed economy.	<b>12</b>
<b>IV</b>	<b>Keynesian Economics-II:</b> Consumption function, saving function, MPC and MPS, APC and APS, Factors affecting consumption function, Investment function, MEC and supply price, Keynesian theory of interest, Multiplier and Accelerator	<b>12</b>

<b>TOTAL</b>		<b>48</b>

**Text Books:**

- Dwivedi D N; *Macroeconomics- Theory and Practice*; 4<sup>th</sup> edition; 2016; McGraw Hill; Chennai
- Dornbusch, Fischer & Startz; *Macro Economics*; 6<sup>th</sup> edition; 2005; Tata-Mcgraw hill education; New Delhi

<b>Semester – I</b>
<b>Paper I/Subject Name: Quantitative Methods in Economics - I</b> <b>Subject Code: ECO182C103</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory</b>

**Course Objective:** This course is designed to provide a good grounding and an in depth understanding of the theory and application of differential calculus, and other techniques widely used in Economics. Topics of study include functions, univariate optimization, elasticity, financial mathematics, multivariate optimization, unconstrained optimization, matrices, integration etc.

**Course Outcomes:**

Students are expected to-

1. **Define** basic concepts like Function, variables, limit, continuation of function etc. (BT level 1)
2. **Construct** economic functions- like demand and supply functions. (BT level 2)
3. **Solve problems** of differentiation, matrices, and integration. (BT level 3)
4. **Solve problems** involving variables that discretely and continuously grow over time, and compute present discounted values, future compounded values, and rates of growth. (BT level 3)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>Elementary concepts-</b> Variables, constants and parameters, set and set operation, Relations and functions; functions- types and graphs, limit of a function, evaluation of the limit of a function, continuity of a	<b>12</b>

	function, equations and identities, Static equilibrium-Market model and national income model.	
<b>II.</b>	<b>Matrix and determinants:</b> elements of matrix algebra- definition, types of matrices, scalar multiplication, matrix multiplication, transpose, inverse of matrix and its application, rank of a matrix, Crammer's rule.	<b>12</b>
<b>III.</b>	<b>Differentiation-</b> concept of derivative, basic rules, partial differentiation, total differentiation, chain rule, differential equation, simple application- elasticity of demand, Cost and revenue, relationship between AC and MC, market demand and national income model	<b>12</b>
<b>IV</b>	<b>Integration-</b> integration of a function, basic rules, integration by parts, integration by substitution, integration by partial function, definite integrals, simple applications of definite integrals, consumer's and producer's surplus	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- *Basic Mathematics and its Economic Applications*; Barua, S.:4<sup>th</sup> edition; 2017; Macmilan India Limited; kolkata

**Reference Books:**

- Chiang, A.C. & Wainwright, K.; *Fundamental Methods of Mathematical Economics*; 4<sup>th</sup> ;2012; McGraw Hill Education; New Delhi
- Henderson, J M and Quandt, R E; *Micro-Economic Theory- a Mathematical Treatment*; 3rd Edn; 2003; McGraw Hill education; New delhi
- Allen, R G D; *Mathematical Economics for Economists*;3<sup>rd</sup> edition; 2003; St Martin press; New york.

<b>Semester – I</b>
<b>Paper I/Subject Name: Data Collection and Analysis - I</b>
<b>Subject Code: ECO182S121</b>
<b>L-T-P-C – 2-0-4-2</b>
<b>Credit Units: 2</b>
<b>Scheme of Evaluation: Project (50%) + Viva (20%) + Continuous Evaluation (30%)</b>

**Course objectives:**

This is a skill enhancement course for data collection techniques and analysis. The students will be given hands on training on using statistical and computing software to better visualize and understand data concepts.

**Course Outcomes:**

On completion of this course students will be expected to –

1. **Define** data and its type. (BT level 1)
2. **Recall** the methods of collection of data. (BT level 1)
3. **Illustrate** various techniques of interview and interviewing. (BT level 2)
4. **Use** MS Excel for presentation of data- diagrams, graphs etc. (BT level 3)

Module	Content	Periods
I	Introduction to the course: Data types and sources: Primary Data and Secondary data; Methods of collecting data- Census Vs Sampling, Questionnaire and Schedule;	6
II	Organisation of data- Basic Techniques Alternative forms of presenting summarising and presenting data- Tables, Diagrams, Graphs -	6
III	Use of MS Excel – Tables, Diagrams, Graphs	6
IV	Interviewers and Interviewing- techniques	6
	Total	24

**Textbooks/Reference Books:**

1. Levine, D., Stephan, D., Szabat, K. (2017). Statistics for managers using Microsoft Excel, 8th ed. Pearson.
2. Tattar, P., Ramaiah, S., Manjunath, B. (2018). A course in statistics with R. Wiley.

<b>AECC - 1 (1<sup>ST</sup> SEMESTER)</b>
---

<b>AECC-1/Subject Name:</b> Communicative English- I: Developing Oral Communication and Listening Skills
--

<b>Subject Code:</b> CEN982A101
---------------------------------

<b>L-T-P-C – 1-0-0-1</b>
--------------------------

<b>Credit Units: 1</b>
------------------------

<b>Scheme of Evaluation: Theory + Viva-Voce + Extempore Speech + Continuous Evaluation</b>
--

<b>Continuous Evaluation: 30 Marks</b>
--

<b>Semester End Examination:</b>
----------------------------------

<p align="center"><b>Component A – Written Examination = 30 Marks</b>  <b>Component B +C – Viva-Voce + Extempore speech = 40 Marks</b></p>
--

**Course Objective:**

The objective of the course is to introduce students to oral communication skills in English by engaging them to meaningful discussion and interactive activities.

**Course Outcomes:**

On completion of this course students will be expected to -

- **Recall** Communication process, verbal, and non-verbal communication. (BT level 1)
- **Demonstrate** the skill of listening processes. (BT level 2)
- **Develop** a life skill on oral group communication like- group discussion, leadership skills, team management. (BT level 3)
- **Apply** the ABC of communication skill. (BT level 3)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<p><b>Basics of Communication- Introduction</b>            Communication - definition – meaning – elements - basics of communication - communication process - importance of communication            Components of Communication            Types/forms of Communication (Oral-written, Formal- Informal (Grapevine), Interpersonal- Intrapersonal, Mass- Group, Verbal- Non Verbal External communication, Organizational Communication- Upward, Downward, horizontal, Diagonal)            Non-verbal Communication - Introduction; Body language- Personal Appearance, Postures, Gestures, Eye Contact, Facial expressions            Paralinguistic Features- Rate, Pause, Volume, Pitch/ Intonation/ Voice/ modulation            Proxemics, Haptics, Artifacts, Chronemics</p>	<b>4</b>
<b>II.</b>	<p><b>The Listening Process</b>            Types of Listening – Superficial, Appreciative, Focused, Evaluative, Attentive, Emphatic,            Listening with a Purpose, Barriers to Communication, Barriers to Listening</p>	<b>4</b>
<b>III.</b>	<p><b>Focus on Oral Group Communication</b>            Nature of group communication, Characteristics of successful Group Communication            Selection of group discussion- subject knowledge, leadership skills, team management            Group Discussion Strategies</p>	<b>4</b>

<b>IV</b>	<b>Language Styles- Oral and Written Communication</b> Technical Style, ABC of technical communication- accuracy, using exact words and phrases, brevity, clarity, Objectivity of Technical Writing - Impersonal language, Objectivity in professional speaking.	<b>4</b>
<b>TOTAL</b>		<b>16</b>

**Textbooks:**

Rizvi, M. Ashraf. (2008). *Effective Technical Communication* (11 reprint). New Delhi: Tata McGraw Hill.

**Reference Books:**

- Koneru, Aruna.(2017) *Professional Communication*. New Delhi: Tata McGraw Hill ISBN-13: 978-0070660021
- Hair, Dan O., Rubenstein, Hannah and Stewart, Rob. (2015). *A Pocket Guide to Public Speaking*. (5<sup>th</sup> edition). St. Martin's. ISBN-13:978-1457670404

<b>AECC – 2 (1<sup>st</sup> Semester)</b>
---

<b>AECC-2/Subject Name:</b> Behavioural Science - I
<b>Subject Code:</b> BHS982A102
<b>L-T-P-C – 1-0-0-1</b>
<b>Credit Units: 1</b>
<b>Scheme of Evaluation: Theory+ Viva-Voce + Extempore Speech + Continuous Evaluation</b>
<b>Continuous Evaluation: 30 Marks</b>
<b>Semester End Examination:</b>
<b>Component A – Written Examination = 30 Marks</b>
<b>Component B +C – Viva-Voce + Extempore speech = 40 Marks</b>

**Course objectives:** To increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations

**Course Outcomes:** On completion of this course students will be expected to -

1. **Define** self-identity and identity crisis. (BT level 1)
2. **Explain** self-esteem, personality traits, theories of learning etc. (BT level 2)
3. **Develop** foundation of individual behaviour. (BT level 3)
4. **Apply** a life skill on Time management. (BT level 3)

Module s	Course Contents	Periods
<b>I</b>	<b>Understanding Self</b> Understanding of Self, what is self? Components of Self-self-identity, Identity crisis, Definition self-confidence, self-image, Johari Window, Self Esteem, High and Low Self-esteem, Erikson's model.	<b>4</b>

<b>II</b>	<b>Foundations of individual behavior</b> Personality- structure, determinants, personality traits, Perception-Perceptual Process, Attribution, Errors in perception, Stereotyping, Racial Profiling, Learning- Theories of learning.	<b>4</b>
<b>III</b>	<b>Managing self</b> Time management: Introduction-the 80:20, sense of time management, Three secrets of time management, Effective scheduling, Stress management, effects of stress, kinds of stress-sources of stress, Signs of stress, Stress management tips.	<b>4</b>
<b>IV</b>	<b>Behaviour and communication.</b> Behaviour as a barrier to Communication, ways to overcome the barriers, Non-verbal communication-body language (voluntary and involuntary body language) forms of body language, Interpreting body language	<b>4</b>
		<b>16</b>

#### **Text books**

- Soft skills by Dr.K.Alex, S.Chand.
- Organisational behaviour by S.P Robbins, Judge , Vohra 18th Ed.

<b>Semester – I (Generic Electives) (List -I)</b>
<b>Paper I/Subject Name: Microeconomics</b>
<b>Subject Code: ECO182G101</b>
<b>L-T-P-C – 3-0-0-3</b>
<b>Credit Units: 3</b>
<b>Scheme of Evaluation: Theory (70% ) + Continuous Evaluation (30%)</b>

#### **Course Objectives:**

This course is designed as generic elective course. It will help the students enrolled in other programmes to understand microeconomic principles.

#### **Course Outcomes:**

On completion of this course students are expected to-

1. **Define** certain basic concepts like-definition of Economics, Subject matters, economic problems etc. (BT level 1)
2. **Explain** how to gauge consumer behaviour, convert desire into demand, create supply and strike equilibrium between the two. (BT level 2)

3. **Explain** economic use of scarce resources, their optimal use in different market conditions, price, and output determinations. (BT level 2)
4. **Apply** behavioural **knowledge** of utilizing scarce resources in their day-to-day life. (BT level 3).

**Detailed Syllabus:**

Modules	Topics (if applicable) & Course Contents	Periods
I.	Economic problems- choice and Scarcity, Concepts of Equilibrium- Static, Comparative static and dynamic, Law of demand, its exceptions, elasticity of demand. Consumer Behaviour-Cardinal Approach, Indifference curve – budget line, Consumer’s equilibrium, Income effect, Substitution effect, price effect, Giffen paradox	9
II.	Production and Cost: Law of variable proportions, Returns to Scale, Isoquant and Iso-cost line, Least cost combination, expansion path Fixed and variable cost, TC, AC, MC, AFC and AVC, Economies and diseconomies of Scale	9
III.	Market: Pricing under perfect competition, Equilibrium of Firm and Industry Price and output determination under monopoly, Price discrimination (Concept only) Price and output determination under monopolistic competition Basic idea of oligopoly	9
IV	Factor pricing: Marginal productivity theory, Differential, economic and quasi rent, Ricardian theory of rent, Wage determination under perfect competition and imperfect market, Risk and uncertainty bearing theory	9
<b>TOTAL</b>		<b>36</b>

**Text Books:**

- *Advanced Economic Theory*; Ahuja, H. L.: 22<sup>nd</sup> edition; 2014; S Chand & Company; New Delhi.

**Reference Books:**

- Jhingan, M L; *Micro Economic Theory*; 8<sup>th</sup> edition; 2017; Vrinda Publications; Delhi
- Koutsiyannis A; *Modern Micro Economic Theory*; 6<sup>th</sup> edition; 2012; Pearson; Delhi

<b>Semester – I (Generic Electives) (List-2)</b>
<b>Paper I/Subject Name: Banking Practices</b>
<b>Subject Code: ECO182G102</b>
<b>L-T-P-C – 3-0-0-3</b>
<b>Credit Units: 3</b>



**Scheme of Evaluation: Theory (70%) + Continuous Evaluation (30%)****Course Objective:**

The objective of the course is to introduce the students with the banking practices in India.

**Course Outcomes:**

On completion of this course students will be expected to:

- **Recall** - origin of banking system, functions of bank and its role in economic development of a country. (BT level 1)
- **Explain** the credit creation process and its limitations. (BT level 2)
- **Illustrate** components of balance sheet of a bank. (BT level 2)
- **Make use of** the knowledge of financial literacy to open various types of bank accounts. (BT level 3)

**Detailed Syllabus:**

Modules	Topics (if applicable) & Course Contents	Periods
I	Introduction to Banking: Origin of Banking; Meaning and Definition of Bank; Types of Banks – Commercial Banks, Industrial Banks, Agricultural Banks, Exchange Banks, Saving Banks, Central Banks, Public Sector and Private Sector Banks, Domestic and Foreign Banks, Scheduled and Non-scheduled Banks; Types of Banking System – Branch Banking and Unit Banking, Group Banking and Chain Banking, Balance Sheet of a Bank	9
II	Commercial Banks: Meaning and definition of Commercial Bank; Functions of Commercial Banks; Credit Creation by Single Bank; Multiple Credit Creation by Banking System; Credit Multiplier	9
III	Central Bank of India: Meaning; Functions of Central; Credit Control by Central – Approaches – Quantitative and Qualitative instruments	9
IV	Operations of Bank: Types of Bank Accounts – Saving Account, Demand Deposit Account, Fixed Deposit, Opening a Bank Account, Know Your Customer (KYC), Non-Performing Asset (NPA); RTGS	9

**Reference Books:**

- Mishra, Sukhvinder; *Banking Law and Practice*; 2019- 4<sup>th</sup> edition; S.chand; New Delhi
- Gomez, Clifford; *Banking and Finance-Theory, Law and Practice*; 2018; PHI learning, New Delhi.

Semester – II
<b>Paper I/Subject Name: Microeconomics-II</b> <b>Subject Code: ECO182C201</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory (70%) + Continuous Evaluation (30%)</b>

### Course Objective:

The objective of the course is to introduce students to understand the behaviour of individuals and firms in allocation of scarce resources. It also enables the students to understand the structure of the market, factor pricing, and welfare economics.

### Course Outcomes:

On completion of this course students are expected to-

1. **Recall** pricing theories of different market structure. (BT level 1)
2. **Illustrate** principles of welfare economics and measuring social welfare. (BT level 2)
3. **Interpret** the behaviour of excess demand and supply. (BT level 2)
4. **Explain** the behaviour of factor market and assess/predict it. (BT level 2)

### Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
I.	<b>Market structure and Pricing:</b> meaning, structure and forms of market. <b>Perfect competition:</b> Characteristics, price and output determination, time elements and price output determination, Equilibrium of firms-short-run and long-run, derivation of supply curve in different industries under perfect competition, effects of taxation and subsidy. <b>Monopoly:</b> characteristics, pricing under monopoly, Price discrimination, conditions for price discrimination, equilibrium output determination under price discrimination, monopoly power. Comparison between perfect competition and monopoly.	12
II.	<b>Monopolistic competition:</b> characteristics, price and output determination, short-run and long-run, group equilibrium, theory of excess capacity, waste and monopolistic competition, selling cost. Comparison between monopoly and monopolistic competition. <b>Oligopoly:</b> characteristics, price, and output determination-price leadership, kinked demand curve model, duopoly – Cournot model.	12

<b>III.</b>	<b>Input Pricing:</b> Functional and personal distribution, Marginal productivity theory, economic and contract rent, Ricardian theory of rent, quasi-rent, modern theory of rent, Theory of wages- marginal productivity theory, exploitation of labour and role of trade union, collective bargaining Theories of profit- gross profit and net profit, risk taking and uncertainty bearing theory.	<b>12</b>
<b>IV</b>	<b>Welfare Economics-</b> social welfare, Pigouvian, pareto and Hicks-Kaldor and Scitovsky Compensation Criterion, Social welfare function Concept of General and Partial equilibrium: Stable and unstable equilibrium.	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- Hall R. Varian (2010); *Intermediate Microeconomics*; 8<sup>th</sup> edition, 2010, Springer (India) Pvt. Ltd.

**Reference Books:**

- Koutsiyannis A; *Modern Micro Economic Theory*; 6<sup>th</sup> edition; 2012; Pearson; Delhi
- Mankiw, N. Gregory; *Principles of Economics*; 6<sup>th</sup> edition; 2007; Thompson; London
- *Advanced Economic Theory*; Ahuja, H. L.: 22<sup>nd</sup> edition; 2014; S Chand & Company; New Delhi.

<b>Semester – II</b>
<b>Paper I/Subject Name: Macro Economics-II</b>
<b>Subject Code: ECO182C202</b>
<b>L-T-P-C – 4-0-0-4</b>
<b>Credit Units: 4</b>
<b>Scheme of Evaluation: Theory (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

This course is designed as an extension of **Macro Economics-I** structured in semester-I. The prime objective of the course is to introduce behaviour of some macroeconomic variables like money, general price level, trade cycle etc. There is immense importance of role of value in macroeconomics. The student of economics must understand the role of the macro-economic variables in attaining stability in an economy.

## Course Outcomes:

Students are expected to-

1. **Recall** the role of macroeconomic variables in maintaining stability in an economy. (BT level 1)
2. **Relate** macroeconomic variables to explain issues like price rise, unemployment, recession, and depression. (BT level 2)
3. **Illustrate** the behaviour of the trade cycle, which is very common in a market economy. (BT level 2)
4. **Analyse** some economic phenomena – like inflation, recession etc. (BT level 3)

## Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
I.	<b>Money and Price:</b> Quantity theory of money- Fisher's equation, Cambridge Cash balance Approach, criticism of quantity theory of money, Keynes reformulation of quantity theory of money, Friedman's modern quantity theory of money, monetarism and Keynesianism compared, the Reconciliation of Keynesian and Monetarist controversy.	12
II.	<b>IS-LM model-</b> the goods market, the money market, the integration of goods and money market; derivation of IS and LM curves; Slope and shift in IS and LM curves; Policy implications- role fiscal and monetary policies.	12
III.	<b>Macroeconomic instability-</b> Inflation and deflation, causes of inflation and deflation, demand pull inflation-Keynesian and monetarist version, Cost-push inflation, Structural inflation, effects of inflation-on production and distribution, measures to control inflation, Stagflation, Phillips curve.	12
IV	<b>Business Cycle-</b> Meaning, Phases, theories of trade cycle, monetary theory, Hayek's theory, Schumpeter's theory, Hicks-Samuelson multiplier-accelerator interaction theory, Real Business Cycle.	12
<b>TOTAL</b>		<b>48</b>

## Text Books:

*Macro Economics*; Oliver Blanchard: 8<sup>th</sup> edition; Pearson

## Reference Books:

- Dwivedi D N; *Macroeconomics- Theory and Practice*; 4<sup>th</sup> edition; 2016; McGraw Hill; Chennai
- Dornbusch, Fischer & Startz; *Macro Economics*; 6<sup>th</sup> edition; 2005; Tata-Mcgraw hill education; New Delhi
- Ahuja, H L; *Macro Economic Theory*; 8<sup>th</sup> edition; 2017; S Chand; Delhi

Semester – II
<b>Paper I/Subject Name: Quantitative Methods for Economics-II</b> <b>Subject Code: ECO182C203</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory (70%) + Continuous Evaluation (30%)</b>

### Course Objective:

This course is correlated with the **Quantitative Methods in Economics-I** structured in semester-I. This course has been basically designed to impart knowledge of application of mathematics in Economics. Now a day, Explanation of economic principles, laws and theories has become mathematic-centric. So, a student must have sufficient knowledge of mathematical tools which very intensely used to explain the behaviour of economic variables.

### Course Outcomes:

Students are expected to-

1. **Recall** mathematical tools in explaining and understanding the behaviour of economic variables. (BT level 1)
2. **Explain** optimization techniques. (BT level 2)
3. **Solve** the problems relating to changing behaviour of economic variables under static as well as dynamic equilibrium. (BT level 3)
4. **Appraise** the art of logical inference and decision making. (BT level 3)

### Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
I.	<b>Maxima and Minima-I: Optimization techniques</b> , unconstrained optimization with one variable, Economic application- cost, revenue, tax revenue and firm's equilibrium. <b>Maxima and Minima-II: Unconstrained optimization with more than one variable</b> , Economic application- Discriminating monopoly, multi-plant firms, Advertisement cost and subsidy. <b>Constrained Optimization (equality constraints)</b> -the method of Lagrange multiplier and economic application	12
II.	<b>Linear Programming Problems-</b> Inequality constraints and formulation of LPP, Graphical solution, Simplex method	12
III.	<b>Calculus for Dynamic Analysis</b> First and second order differential equation and its solutions – application to dynamic stability of market and simple growth process (Harrod-Domar).	12

	First order difference equation and its solution application of difference equation – lagged market model (Cobweb) and Domar model of growth; Optimal Control Theory- Basic Idea– Procedure – A few illustrative examples	
<b>IV</b>	<b>Game theory</b> - introduction and concepts, two people zero sum game, Saddle point, dominance rule, Graphical method, Prisoner’s dilemma, Nash equilibrium.	<b>12</b>
<b>TOTAL</b>		<b>40</b>

**Text Books:**

- *Basic Mathematics and its Economic Applications*; Barua, S.:4<sup>th</sup> edition; 2017; Macmilan India Limited ; kolkata

**Reference Books:**

- Chiang, A.C. & Wainwright, K.; *Fundamental Methods of Mathematical Economics*; 4<sup>th</sup> ;2012; McGraw Hill Education; New Delhi
- Henderson, J M and Quandt, R E; *Micro-Economic Theory- a Mathematical Treatment*; 3rd Edn; 2003; McGraw Hill education; New delhi
- Allen, R G D; *Mathematical Economics for Economists*;3<sup>rd</sup> edition; 2003; St Martin press; New york.

<b>Semester – II</b>
<b>Paper I/Subject Name: Data Collection and Analysis-II</b> <b>Subject Code: ECO182S221</b> <b>L-T-P-C – 2-0-4-2</b> <b>Credit Units: 2</b> <b>Scheme of Evaluation: Project (50%) + Viva (20%) + Continuous Evaluation (30%)</b>

**Course objectives:**

This is a skill enhancement course for data collection techniques and analysis. The students will be given hands on training on using statistical and computing software to better visualize and understand data concepts.

**Course Outcomes:**

After completion of the course learners will-

1. **Recall** the methods of data collection. (BT level 1)
2. **Develop** Questionnaire. (BT level 2)
3. **Make use** of organization and visual representation of data. (BT level 3)
4. **Apply** sampling techniques as a tool of research. (BT level 3)

<b>Module</b>	<b>Content</b>	<b>Periods</b>
---------------	----------------	----------------

I	Introduction; Different types of questions, Measurement error in questions: Bias and variance; Standardized and conversational interviewing;	6
II	Questionnaire Design and implementing the questionnaire	6
III	Sampling and Weighting- types of sampling, Designing a sample from population	6
IV	Sampling as a tool of research-	6
		24

### Reference Books:

1. Levine, D., Stephan, D., Szabat, K. (2017). Statistics for managers using Microsoft Excel, 8th ed. Pearson.
2. Tattar, P., Ramaiah, S., Manjunath, B. (2018). A course in statistics with R. Wiley.

## AECC – 3 (2NDSEMESTER)

<b>AECC-I/Subject Name:</b> Communicative English- II: Conversation and Public Speaking
<b>Subject Code:</b> CEN982A201
<b>L-T-P-C – 1-0-0-1</b>
<b>Credit Units: 1</b>
<b>Scheme of Evaluation: Theory + Viva-Voce + Extempore Speech+ Continuous Evaluation</b>
<b>Continuous Evaluation: 30 Marks</b>
<b>Semester End Examination:</b>
<b>Component A – Written Examination = 30 Marks</b>
<b>Component B +C – Viva-Voce + Extempore speech = 40 Marks</b>

**Course Objective:** The objective of the course is to give students a platform to enhance their speaking and conversational skills in English by engaging them in meaningful discussions and interactive activities.

### Course Outcomes:

On completion of this course students are expected to -

1. **Recall** the technicalities of good conversations. (BT level 1)
2. **Demonstrate** good conversation. (BT level 2)
3. **Develop** enhanced personality and become assertive. (BT level 3)

Detailed Syllabus:

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>Speaking Skills</b> Speaking – The Art of Speaking, Goals, Speaking Styles, The Speaking Process Importance of Oral Communication, Choosing the form of Communication, Principles & Guidelines of Successful Oral Communication, Barriers to Effective Oral Communication Three aspects of Oral Communication – Conversing, Listening and Body Language Intercultural Oral Communication	<b>4</b>
<b>II.</b>	<b>Conversational Skills : Listening and Persuasive Speaking</b> Conversation – Types of Conversation, Strategies for Effectiveness, Conversation Practice, Persuasive Functions in Conversation, Telephonic Conversation and Etiquette Dialogue Writing, Conversation Control	<b>4</b>
<b>III.</b>	<b>Transactional Analysis</b> The Role of Intonation , Strokes, Psychological Characteristics of Ego States (The Parent, The Adult, The Child), Structure and Aspects of Human Personality Analysing Transactions – Complementary Transactions, Crossed Transactions, Duplex or Ulterior Transactions, How to Identify the Ego States of Interacting Individuals, How to Manage Conversations, Structural Analysis, Certain Habits of Ineffective Conversationalists	<b>4</b>
<b>IV</b>	<b>Public Speaking</b> Business Presentation and Speeches – Difference Elements of a Good Speech – Planning, Occasion, Audience, Purpose, Thesis, Material Organising and Outlining a Speech Outline, Types of Delivery Guidelines for Delivery – Verbal Elements, Non-Verbal Elements, Vocal Elements, Visual Elements, Controlling Nervousness and Stage Fright	<b>4</b>
<b>TOTAL</b>		<b>16</b>

**Text Books:**

- Mehra, Payal. (2012). *Business Communication for Managers*: Dorling Kindersley (India) Pvt. Ltd. Page 75 – 83. ISBN 978-81-317-5865-6

**Reference Books**

- Raman, Meenakshi and Singh, Prakash.(2012). *Business Communication* (2<sup>nd</sup> Edition): Oxford University Press. Page 123 – 165.ISBN-13:978-0-19-807705-03



- Raman, Meenakshi and Sharma, Sangeeta. (2011). *Technical Communication: Principles and Practice* (2<sup>nd</sup> Edition): Oxford University Press. Page 137 – 148 ISBN-13:978-0-19-806529-6
- Sengupta, Sailesh.(2011) *Business and Managerial Communication*. New Delhi : *PHI Learning Pvt. Ltd.* Page 136-153.ISBN-978-81-203-4435-8

<b>AECC-4 (2<sup>nd</sup> Semester)</b>
---

<b>AECC-4/Subject Name:</b> Behavioural Science - II
<b>Subject Code:</b> BHS982A202
<b>L-T-P-C – 1-0-0-1</b>
<b>Credit Units: 1</b>
<b>Scheme of Evaluation: Theory + Viva-Voce + Extempore Speech+ Continuous Evaluation</b>
<b>Continuous Evaluation: 30 Marks</b>
<b>Semester End Examination:</b>
<b>Component A – Written Examination = 30 Marks</b>
<b>Component B +C – Viva-Voce + Extempore speech = 40 Marks</b>

**Course objectives:**This course is designed to increase one's ability to draw conclusions and develop inferences about attitudes and behaviour, when confronted with different situations that are common in modern organizations

**Course Outcomes:**

On completion of this course students will be expected to -

1. **Relate** culture and personality. (BT level 1)
2. **Explain** personal and organizational values. (BT level 2)
3. **Demonstrate** leadership. (BT level 2)
4. **Develop a life skill** on motivation. (BT level 3)

Module s	Course Contents	Periods
<b>I</b>	<b>Culture and Personality</b> Relation Between Culture and Personality with Relevant Examples, Cultural Iceberg, Overview of Hofstede's Framework, Discussion of the four dimensions of Hofstede's Framework.	<b>4</b>
<b>II</b>	<b>Attitudes and Values</b> Attitude's definition: changing our own attitudes, Process of cognitive dissonance Types of Values, Value conflicts, Merging personal and Organisational values, changes of values with time, male & female values differences.	<b>4</b>

<b>III</b>	<b>Leadership</b> Definition of leadership, types of leadership, Leadership Continuum Transformational & transactional Leadership, Ethical Leadership.	<b>4</b>
<b>IV</b>	<b>Motivation</b> Definition of motivation with example, Theories of Motivation (Maslow & X and Y) Applications of motivation.	<b>4</b>
		<b>16</b>

**Text books:**

- Organizational Behaviour by Kavita Singh (Vikas publishers, 3rd Edition).
- Organisational behaviour by S.P Robbins, Judge , Vohra 18th Ed.

**Semester – II (Generic Electives) (List -I)**

**Paper I/Subject Name: Macro Economics**

**Subject Code: ECO182G201**

**L-T-P-C – 3-0-0-3**

**Credit Units: 3**

**Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)**

**Course Objective:** This course is designed to introduce students to the basics of national income and its determination, output, and employment, working of multiplier, business cycle, inflation, and its causes.

**Course Outcomes:**

On completion of this course students will be expected to

1. **Define** and **understand** working of Macroeconomic variables. (BT level 1)
2. **Relate** working of multiplier and MPC. (BT level 1)
3. **Illustrate** the methods of estimating national income. (BT level 2)
4. **Identify** factors causing inflation. (BT level 3)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Circular flow of Income- 2, 3 and 4- sector economy; National Income and related aggregates, methods of estimating National Income-Value added, Income method and expenditure method, National Income and Economic welfare	<b>9</b>

<b>II.</b>	Theories of output and employment: An overview of classical theory, Keynesian theory, Consumption function and Investment function, working of Multiplier	<b>9</b>
<b>III.</b>	Business cycle- meaning, phases and their characteristics, theories of trade cycle	<b>9</b>
<b>IV</b>	Inflation- Demand pull and cost push theories, effects of inflation on production and distribution, anti-inflationary policy	<b>9</b>
<b>TOTAL</b>		<b>36</b>

**Text Books:**

- Dwivedi D N; *Macroeconomics- Theory and Practice*; 4<sup>th</sup> edition; 2016; McGraw Hill; Chennai
- Ahuja, H L; *Macro Economic Theory*; 8<sup>th</sup> edition; 2017; S Chand; Delhi

<b>Semester – II (Generic Electives) (List-2)</b>
<b>Paper I/Subject Name: Fundamentals of Financial Economics</b>
<b>Subject Code: ECO182G202</b>
<b>L-T-P-C – 3-0-0-3</b>
<b>Credit Units: 3</b>
<b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** The objective of the course is to introduce students to understand principles of measuring risk and return

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Recall** market valuation of bond and equity stock. (BT level 1)
2. **Define** risk, its components and risk management. (BT level 1)
3. **Classify** the derivative market. (BT level 2)
4. **Explain** theories relating to banking performance, market, and interest risks of banks and about bank failure. (BT level 2)

**Detailed Syllabus:**

Module	Topics	Maximum number of classes
I	<b>Principles of Market Valuation</b> Time value of money, Present Value and Future Value Calculation, Compound interest and Annuity.	9
II	<b>Measuring Risk and Return</b> Investment-Types of investment, Risk and return, Portfolio Management Fundamental theories of financial economics.	9
III	<b>Capital Budgeting</b> Introduction to financial statement, assessing financial performance, net present value, internal rate of return, payback period; projects with different lives; money and time weighed rate of return; fixed interest securities, uncertain income securities, equities, valuing a loan with allowance for capital gains and indexation	9
IV	<b>Interest Rate Calculation</b> Rationale for no arbitrage assumption; forward contracts, calculating the forward price for a security with known dividend yield; hedging, fixed cash income; Discrete time and continuous time rates; continuous time spot rates and forward rates; instantaneous forward rates; theories of time; term structure of interest rates; yield curve; yields to maturity; convexity and immunization; interest rate risk.	9

**Text-Books:**

- *Fundamentals of Investments*. Alexander G. J, Sharpe W. F. & Bailey J. V. (2001) Pearson Education; London

**Reference Books:**

- Madura J.; *Financial Institutions and Markets*; 2006; Thomson; New Delhi
- Bodie Z, Merton R. C. & Cleeton D. L. *Financial Economics*; 2009; Pearson/ Prentice Hall.

Semester – III
<b>Paper I/Subject Name: Public Finance - I</b> <b>Subject Code: ECO182C301</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** This course is designed to introduce students about the subject matter of public Finance with special reference to India.

**Course Outcomes:**

On completion of this course students are expected to-

1. **Recall** the mechanism of the Government finance. (BT level 1)
2. **Differentiate** between public and private finance. (BT level 1)
3. **Explain** components public revenue and heads of public expenditure. (BT level 2)
4. **Illustrate** management of public debt with special reference to developing countries. (BT level 2)

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>Nature and Scope of Public Finance:</b> Definition, nature and scope of public finance, Sources of Public Finance, Distinction Between Public and Private Finance, Public Goods Vs Private Goods, Role of Merit Goods, Role of Public Finance, Principles of Public Finance, Absolute Advantage theory, Principles of Maximum Social Advantage.	<b>12</b>
<b>II.</b>	<b>Public Revenue:</b> - Concept, Tax and Non- Tax Revenue, Direct Vs Indirect Tax, Ability To Pay, Principles Of Taxation, Shifting and Incidence of Taxation, Taxable Capacity, Effects Of Taxation On Production and Distribution, Rate and Structure in Taxation. Concept of disinvestment, monetization and debt-gap ratio.	<b>12</b>
<b>III.</b>	<b>Public Expenditure-</b> concept, causes of growth of Public Expenditure(Wagner's Law), Classification of Public Expenditure, Cannons of Public Expenditure, Theories of Public Expenditure, Effects Of Public Expenditure on Production , Distribution and Economic Stability, Role of Public Expenditure in Developing Economy.	<b>12</b>
<b>IV</b>	<b>Public Debt</b> —Concept, Sources, Types of Public Debt, Reasons for growing public Debt, Effects of Public Debt, Burden of Public Debt, Redemption of Public Debt, Debt Trap, Role of Public Debt with special reference to Developing economies.	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

*Public Finance*; Ghosh and Ghosh: 3<sup>rd</sup> edition; 2020; PHI, New delhi

**Reference Books:**

- Andley K.K & Sundharam, K.P.M; *Public Economics and Public Finance*;4<sup>th</sup> edition; 2012 Rattan Prakashan Mandir; New Delhi

- Tyagi, B. P.: *Public Finance*; 12<sup>th</sup> edition; 2016; Jai Prakash Nath & Co; New Delhi
- Choudhury, R. K. & Chakraborty, R. C.; *Public Finance and Fiscal Policy*; 4<sup>th</sup> edition; 2017; Kalyani Publishers; New Delhi

<b>Semester – III</b>
<b>Paper I/Subject Name: Statistical Methods</b> <b>Subject Code: ECO182C302</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** This course is designed to introduce students about statistical tools and its applications in economic analysis- formulating economic laws, economic policies, and in economic research.

**Course Outcomes:**

On completion of this course students will be expected to

1. **Recall** the methods of computing averages and dispersion. (BT level 1)
2. **Explain** basics of survey techniques, probability etc. (BT level 2)
3. **Solve** the problems of correlation among different variables and its interpretations. (BT level 3)
4. **Infer** the trend line. (BT level 4)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>Introduction:</b> Importance of statistics in Economics <b>Measures of Central tendency:</b> Mean- Arithmetic, Geometric (Concept only) and Harmonic mean (Concept only) Median and Mode <b>Measures of Dispersion:</b> Range, Quartile deviation, Mean Deviation, Standard deviation, co-efficient of variation, Lorenz curve.	<b>12</b>
<b>II.</b>	<b>Correlation:</b> Concept, types of correlation, Karl Pearson's Correlation Co-efficient, Properties of correlation coefficient, Rank Correlation and partial correlation <b>Regression:</b> Estimation of regression line in a bi-variate distribution- least square method, properties of regression co-efficient.	<b>12</b>
<b>III.</b>	<b>Index Number</b> Concept, uses, problems in the construction of an index number, methods- price relatives, Laspeyres's, Paasche's and Fisher's Index number, Chain base index number, Cost of living index number, deflating, splicing.	<b>12</b>

	<b>Time Series Analysis:</b> Concept, components, measurement of trend-graphic method, moving average, least square method, fitting of linear trend	
<b>IV</b>	<b>Probability:</b> Concepts, rules of probability, conditional probability, concept of discrete and continuous random variables, mathematical expectation (relating to only one variable), standard probability distribution- Binomial, Poisson, and Normal distribution (Basics only) <b>Sample Survey:</b> Complete enumeration vs Sampling, Population, sample, parameter, types of sampling methods- probability Sampling: Simple Random Sampling- with and without replacement, Stratified Random Sampling, Systematic Sampling; Non-sampling Sampling-Concept and types.	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- Nagar and Das; *Basic Statistics*; 2<sup>nd</sup> edition; Oxford University Press; 1976.
- *Statistical Method*; Gupta, S P; 28<sup>th</sup> edition; 2016; Sultan Chand and Sons; New Delhi

**References:**

- Gupta, S C and Kapoor; *Fundamentals of applied Statistics*; V K; 4<sup>th</sup> edition; 2016; Sultan Chand and sons; New Delhi

**Semester – III (DSE)**

**Paper I/Subject Name: Money and Banking**

**Subject Code: ECO182D301**

**L-T-P-C – 4-0-0-4**

**Credit Units: 4**

**Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)**

**Course Objective:** The objective of the course is to introduce students about theories and functioning of the monetary and financial sectors of the economy. It highlights the organization, structure and role of financial markets and institutions.

**Course Outcomes:**

On completion of this course students are expected to:

1. **Recall** the evolution of money and its functions. (BT level 1)
2. **Explain** the role money demand and money supply in determining the rate of interest. (BT level 2)
3. **Illustrate** functioning of a bank and banking practices. (BT level 2)
4. **Relate** monetary policies formulated by the government and economic development. (BT level 2)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Barter System, Problems of barter system Money- Definition, characteristics, functions-primary and secondary functions; types of money-legal tender money, Fiat money, token money, near money, digital currency, Cryptocurrency; demand for money and supply of money	<b>12</b>
<b>II.</b>	Commercial Banks –Definition, a brief history of Banking, functions of commercial banks, credit creation, credit multiplier role of commercial banks in economic development	<b>12</b>
<b>III.</b>	Types of banking-scheduled and non-scheduled banking, foreign banking vs domestic banking, commercial banks vs investment banks, unit banking, branch banking, chain banking, group banking, wholesale banking, Retail banking Characteristics of a good banking.	<b>12</b>
<b>IV</b>	Central Banks- Meaning, functions-regulatory, promotional and development function, Credit control policies-quantitative and qualitative credit control policies, high powered money, core banking.	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- *Money, Banking and Finance*; Sinha, N K: 3<sup>rd</sup> edition; 2012: BSC publishing House; New Delhi

**Reference Books:**

- Fedrick s Mishkin; *The Economics of Money, Banking and Financial Market*; 4<sup>th</sup> ; 2011; Pearson;

**Semester – III (DSE)****Paper I/Subject Name: Demography****Subject Code: ECO182D302****L-T-P-C – 4-0-0-4****Credit Units: 4****Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)**

**Course Objective:** The study of **demography** is of immense importance to an economy. Population studies help us to know how far the growth rate of the economy is keeping pace with the growth rate of population. The objectives of the course are to introduce students to achieve knowledge about size, composition, organization, and distribution of population and also to understand theories of population.

**Course Outcomes:**

On completion of this course students will be expected to:



1. **Recall** different theories of population. (BT level 1)
2. **Classify** the components of distribution of population. (BT Level 2)
3. **Solve** problems of predicting population growth and other vital statistics. (BT level 3)
4. **Develop** research projects on Population Distribution and issues of Migration. (BT level 3)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Meaning and scope of demography; components of population growth and their interdependence; Measures of population change; Structure, distribution and sources of population data; Theories of population – Malthus, Optimum theory of population; theory of demographic transition – Views of Meadows, Enke and Simon; Population and development.	<b>12</b>
<b>II.</b>	Population trends in the twentieth century; Population explosion – Threatened or real, distant, or imminent; international aspects of population growth and distribution; Pattern of age and sex structure in more developed and less developed countries; Determinants of age and sex structure; Demographic effects of sex and age structure, economic and social implications; Age pyramids and projections – Individual aging and population aging.	<b>12</b>
<b>III.</b>	<b>Study of Fertility:</b> Importance of study of fertility – Total fertility rate, Gross reproduction rate and net reproduction rate; Levels and trends of fertility in more and less developed countries; Factors affecting fertility – Socio-economic factors, economic status, health, education, nutrition, caste, religion, race, region, rural-urban and status of husband wife; <b>Nuptiality</b> – Concept and analysis of marital status, single mean age at marriage; Synthetic cohort methods; Trends in age at marriage; <b>Mortality</b> – Death rates, crude and age-specific; Mortality at birth and infant mortality rate; levels and trends in more and less developed countries; Sex and age pattern of mortality; Factors for decline in mortality in recent past; Life table (Concept only)	<b>12</b>
<b>IV</b>	<b>Migration:</b> Concept and types – Temporary, internal and international; International migration –Its effect on population growth and pattern; Factors affecting migration; Theories of migration related to internal migration; Urbanization – Growth and distribution of rural-urban population in developed and developing countries.	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- *Principles of Demography*; Bogue, D. J.; 2<sup>nd</sup> edition, 1969 John Wiley & Sons Inc (April 1969) New York

**Reference Book:**

- *Basic Demographic Techniques and Applications*; Srinivasan, K. (1998), Sage, New Delhi.

<b>Semester – III (Generic Electives)</b>
<b>Paper I/Subject Name: Public Finance</b> <b>Subject Code: ECO182G301</b> <b>L-T-P-C – 3-0-0-3</b> <b>Credit Units: 3</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** The objective of the course is to introduce students to about government finance with special reference to India. It investigates different components of government finance- like public revenue and public expenditure.

**Course Outcomes:**

On completion of this course students will be expected to

1. **Recall** the mechanism of the Government finance. (BT level 1)
2. **Differentiate** between public and private finance. (BT level 2)
3. **Illustrate** components of public revenue and components of public expenditure. (BT level 2)
4. **Explain** management of public debt with special reference to developing countries. (BT level 2)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>Nature and Scope of Public Finance:</b> Definition, nature and scope of public finance, Sources of Public Finance, Distinction Between Public and Private Finance, Public Goods Vs Private Goods, Role of Merit Goods, Role of Public Finance, Principles Of Public Finance, Absolute Advantage theory, Principles of Maximum Social Advantage.	<b>9</b>
<b>II.</b>	<b>Public Revenue:</b> - Concept, Tax and Non- Tax Revenue, Direct Vs Indirect Tax, Ability To Pay, Principles Of Taxation ,Shifting and Incidence of Taxation, Taxable Capacity, Effects Of Taxation On Production and Distribution, Rate and Structure in Taxation.	<b>9</b>

<b>III.</b>	<b>Public Expenditure-</b> concept, causes of growth of Public Expenditure( Wagner’s Law), Classification of Public Expenditure, Effects Of Public Expenditure on Production , Distribution and Economic Stability, Role of Public Expenditure in Developing Economy.	<b>9</b>
<b>IV</b>	<b>Government Budget-</b> Concept, classification---Balanced & Unbalanced Budget, Structure of a budget, Capital and Revenue Budget,. <b>Public Debt</b> —Concept, Sources, Types Of Public Debt, Burden Of Public Debt, Redemption Of Public Debt <b>Fiscal and Monetary policies-</b> Objectives and tools	<b>9</b>
<b>TOTAL</b>		<b>36</b>

**Text Books:**

- *Public Finance and Fiscal Policy*; Choudhury, R. K. & Chakraborty, R. C.:4<sup>th</sup> edition; 2017; Kalyani Publishers ; New Delhi

**Reference Books:**

- Andley K.K & Sundharam, K.P.M; *Public Economics and Public Finance*;4<sup>th</sup> edition; 2012 Rattan Prakashan Mandir; New Delhi
- Tyagi, B. P.: *Public Finance*; 12<sup>th</sup> edition; 2016; Jai Prakash Nath & Co; New Delhi

<b>Semester – III (SEC)</b>
<b>Paper I/Subject Name: Financial Economics</b>
<b>Subject Code: ECO182S321</b>
<b>L-T-P-C – 0-0-4-2</b>
<b>Credit Units: 2</b>
<b>Scheme of Evaluation: Project (50%) + Viva (20%) + Continuous Evaluation (30%)</b>

**Course Objective:** The objective of the course is to introduce students to understand principles of measuring risk and return

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Recall** market valuation of bond and equity stock. (BT level 1)
2. **Define** risk, its components and risk management. (BT level 1)
3. **Classify** the derivative market. (BT level 2)
4. **Apply** the knowledge as a life skill. (BT level 3)

**Detailed Syllabus:**

Module	Topics	Maximum number of classes
I	<b>Principles of Market Valuation</b> Time value of money, Present Value and Future Value Calculation, Compound interest and Annuity.	4
II	<b>Measuring Risk and Return</b> Investment-Types of investment, Risk and return, Portfolio Management	4
III	<b>Capital Budgeting</b> Introduction to financial statement, assessing financial performance, net present value, internal rate of return, payback period; projects with different lives; money and time weighed rate of return; fixed interest securities, uncertain income securities, equities, valuing a loan with allowance for capital gains and indexation	4
IV	<b>Interest Rate Calculation</b> Rationale for no arbitrage assumption; forward contracts, calculating the forward price for a security with known dividend yield; hedging, fixed cash income; Discrete time and continuous time rates; continuous time spot rates and forward rates; instantaneous forward rates; theories of time; term structure of interest rates; yield curve; yields to maturity; convexity and immunization; interest rate risk.	4

**Text-Books:**

- *Fundamentals of Investments*. Alexander G. J, Sharpe W. F. & Bailey J. V. (2001) Pearson Education; London

**Reference Books:**

- Madura J.; *Financial Institutions and Markets*; 2006; Thomson; New Delhi
- Bodie Z, Merton R. C. & Cleeton D. L. *Financial Economics*; 2009; Pearson/ Prentice Hall.

Semester – IV
<b>Paper I/Subject Name: Public Finance</b> <b>Subject Code: ECO182C401</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** The objective of the course is to introduce students to about government finance with special reference to India. It investigates different components of government finance- like public revenue and public expenditure. This is designed as an extension of **Public Finance-I** structured in semester-III.

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Recall** the mechanism of the Government finance. (BT level 1)
2. **Explain** taxation policies and their role in economic analysis. (BT level 2)
3. **Illustrate** Fiscal policies and its role in economic development of a nation. (BT level 2)
4. **Summarise** functions of Finance Commission and importance public utility services. (BT level 2)

**Detailed Syllabus:**

Modules	Topics (if applicable) & Course Contents	Periods
I.	<b>Theory of Public Goods and Optimum Budget Policy.</b> Definition and characteristics of Public Goods, Demand and Supply Character of Public Goods, Its Types, Size and sphere of Public Goods, Externality and Public Goods. Normative, Allocative, Distributional, and Stabilization objectives of Budget. Optimum Budget model of Musgrave.	12
II.	<b>Government Budget-</b> Concept, classification---Balanced & Unbalanced Budget, Capital and Revenue Budget, Zero-based Budgeting, Deficit Budget, Its Measurement---Revenue, Fiscal & Primary deficit, Deficit Financing.	12
III.	<b>Fiscal Policy</b> —Meaning, Objectives, Components, fiscal policies for full employment and economic growth, fiscal policies and price stability, Role of Fiscal Policy in a Developing Economy.	12
IV	<b>Federal Finance</b> —Meaning, principles and problems of federal finance, Finance Commissions of India--- A Brief Review. Public Enterprise, meaning, different forms, advantages and disadvantages, its role in developing economies. Public Utility, meaning, difference with Public Enterprises, Abuse of Public Utility.	12
<b>TOTAL</b>		<b>48</b>

**Text Books:**

- *Public Finance and Fiscal Policy*; Choudhury, R. K. & Chakraborty, R. C.:4<sup>th</sup> edition; 2017; Kalyani Publishers ; New Delhi

**Reference Books:**

- Andley K.K & Sundharam, K.P.M; *Public Economics and Public Finance*;4<sup>th</sup> edition; 2012 Rattan Prakashan Mandir; New Delhi
- Tyagi, B. P.: *Public Finance*; 12<sup>th</sup> edition; 2016; Jai Prakash Nath & Co; New Delhi

Semester – IV
<b>Paper I/Subject Name: Introductory Econometrics</b> <b>Subject Code: ECO182C402</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** Econometrics is the use of statistical techniques to understand economic issues and test theories. Without evidence, economic theories are abstract and might have no bearing on reality. Econometrics is a set of tools we can use to confront theory with real-world data. It provides the tools to enable the students to extract useful information about important economic policy issues from available data.

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Define** the basic concepts of relating to estimation of parameters and testing of hypotheses (BT level 1)
2. **Illustrate** methods regression analysis of economic data. (BT level 2)
3. **Develop** elementary procedures for model validation in the single equation context. (BT level. (BT level 3)
4. **Make use of** econometric tools in problem solving. (BT level 3)

**Detailed Syllabus:**

Modules	Topics (if applicable) & Course Contents	Periods
I.	<b>Statistical Inference:</b> Introduction to Normal distribution; chi-square, t- and F-distributions, testing of hypothesis, Type-I and Type-II errors, Power of a test, Tests for comparing parameters from two samples	10
II.	<b>Nature of Econometrics and Economic Data:</b> Nature and scope of Econometrics, Methodology of Econometric analysis, Notion of Causality in Econometrics, <b>Simple linear regression model:</b> Assumption of Ordinary least square estimator, Estimation of model by method of ordinary least squares, Properties of estimators, Goodness of fit, Testing of Hypotheses, Scaling and units of measurement, Confidence intervals, Gauss Markov Theorem, Forecasting. <b>Lab sessions for econometric analysis.</b>	14
III.	<b>Multivariable linear regression model:</b> Estimation of parameters, Properties of OLS estimators, Goodness of fit- R square and Adjusted R square, Partial regression coefficients, Testing Hypotheses: Individual and Joint, Functional Forms of Regression Models, Qualitative (dummy) independent variables. <b>Lab sessions for econometric analysis.</b>	12
IV	<b>Violation of Classical Assumptions.; consequences, detection and remedies</b> Multicollinearity, Heteroskedasticity, Serial Correlation Omission of a relevant variable, Inclusion of irrelevant variable <b>Lab sessions for econometric analysis.</b>	12
<b>TOTAL</b>		<b>48</b>

**Text books:**

- Jeffrey M. Wooldridge, *Econometrics*, CENGAGE learning, India Edition, 2009.

### Reference Book

- *Econometrics by Example*; Damodar Gujarati, 4<sup>th</sup> edition; 2011; Palgrave Macmillan..
- Dimitrios Asteriou and Stephen Hall, *Applied Econometrics: A Modern Approach*, Palgrave Macmillan, 2007.
- Kmenta, Jan; *Elements of Econometrics*; 2<sup>nd</sup> edition, 2017; University of Michigan Press; London

Semester – IV
<b>Paper I/Subject Name: Financial System</b> <b>Subject Code: ECO182D401</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** The objective of the course is to introduce students the Indian Financial system- its constituents, financial market-its types and functions, financial institutions and their services.

### Course Outcomes:

On completion of this course students will be expected to:

1. **Classify** the structure of Indian financial system of India.
2. **Explain** the functions of money and capital markets.
3. **Develop** their problem-solving capacity to various finance related queries.
4. **Explain** the mechanism of digital banking system.

### Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
I.	Meaning of financial system, Concepts, Basic functions, Components of financial system, financial system, and economic development	12
II.	Financial market: classification, money market and its constituents in India, functions of money market, money market and money market institution Capital Market: Primary and Secondary market, functions of capital market	12
III.	Financial institutions-Distinction between Banking and non-banking financial institutions. Structure of banking in India, types of non-banking financial institutions	12
IV	Financial instruments and Services, characteristics, emerging financial services-leasing, hire purchases, merchant banking, depository, mutual fund, and credit rating, Global recession, NPA problems, subprime lending crisis.	12

<b>TOTAL</b>	<b>48</b>
--------------	-----------

**Text Books:**

- *Indian Financial System*; Bharti, V Pathak; 3<sup>rd</sup> edition; 2011; Pearson ; New Delhi

**Reference Books:**

- Gupta, S, Agarwal, Nisha and Gupta, Neeti; *Indian Financial System*; 2<sup>nd</sup> edition; 2011; Kalyani Publishers; New Delhi.

<b>Semester – IV</b>
<b>Paper I/Subject Name: Agriculture and Resource Economics</b> <b>Subject Code: ECO182D402</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

The objective of the course is to introduce students to know about role agriculture and farming in economic development of a nation.

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Relate** agriculture and industry linkage and its interaction. (BT level 1)
2. **Recall** production theories of agriculture. (BT level 1)
3. **Explain** the principles of resource allocation. (BT level 2)
4. **Identify** issues relating to agriculture sector in a developing country. (BT level 3)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Agriculture and economic development; Agriculture – Industry Linkage, Interaction between agriculture and the rest of the economy; Agriculture and rural poverty. Productivity in agriculture, Traditional agriculture and its modernization question.	<b>12</b>
<b>II.</b>	Theories and models: Physiocratic model of agricultural development, Mellore & Schultz models of agricultural development.	<b>12</b>
<b>III.</b>	Agricultural Production Economics - meaning and basic concepts of production economics in agriculture, the principles of resources allocation: production function approach, increasing and diminishing production function, total, average and marginal product curves, and the relation between them, stages of rational and irrational production.	<b>12</b>



<b>IV</b>	The general conditions of equilibrium, factor- product, factor-factor, and product-product relationship.	<b>12</b>
<b>TOTAL</b>		<b>48</b>

**Text books**

- *An Introduction to Agriculture Economics*; Bilgrami S.A.R.; 2<sup>nd</sup> edition; Himalaya Publishing House; New Delhi

**Reference books:**

- Bilgram, S. A. R.: *Agricultural Economics*; 2<sup>nd</sup> edition; 1996; Himalaya Publishing House, Delhi
- Rudra, A. : *Indian Agricultural Economics: Myths and Reality*; 1982; Allied Publishers, New Delhi.
- : Bhaduri, A; *he Economic Structure of Backward Agriculture*. 2<sup>nd</sup> edition; 1984; Macmillan, Delhi.

<b>Semester – IV(SEC)</b>
<b>Paper I/Subject Name: Budgeting and Union Budget Analysis</b>
<b>Subject Code: ECO182S421</b>
<b>L-T-P-C – 0-0-4-2</b>
<b>Credit Units: 2</b>
<b>Scheme of Evaluation: Project (50%) + Viva (20%) + Continuous Evaluation (30 %)</b>

**Course Objective:** The objective of the course is to introduce students to know about role budgeting in economic development of a nation.

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Recall** the process of preparation of Budget of an economy. (Bt level 1)
2. **Explain** how a govt. budget is implemented. (BT level 2)
3. **Appraise** a Govt. budget. (BT level 3)

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Budget- Meaning, types and structure of a govt budget. Revenue and Capital budget. Formation of budget and its implementation in India	<b>6</b>

<b>II.</b>	Estimates of budget- Estimates of revenue and capital receipts	<b>6</b>
<b>III.</b>	Understanding a Budget- Measurement of deficits-Fiscal deficit and Primary deficit	<b>6</b>
<b>IV</b>	Analysis of Budget- Current Union Budget	<b>6</b>
<b>TOTAL</b>		<b>24</b>

**Text Books:**

- *Public Finance and Fiscal Policy*; Choudhury, R. K. & Chakraborty, R. C.:4<sup>th</sup> edition; 2017; Kalyani Publishers ; New Delhi

**Reference Books:**

- Andley K.K & Sundharam, K.P.M; *Public Economics and Public Finance*;4<sup>th</sup> edition; 2012 Rattan Prakashan Mandir; New Delhi
- Tyagi, B. P.: *Public Finance*; 12<sup>th</sup> edition; 2016; Jai Prakash Nath & Co; New Delhi

<b>Semester – IV(Generic Elective)</b>
<b>Paper I/Subject Name: Indian Economy</b> <b>Subject Code: ECO182G401</b> <b>L-T-P-C – 3-0-0-3</b> <b>Credit Units: 3</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:** The objective of this course is to equip the students with a good understanding of India’s economic problems.

**Course Outcomes:**

On completion of this course students will be expected to:

1. **Recall** composition, trend and methods of estimating national income in India. (BT level 1)
2. **Summarise** role, nature and issues relating to agriculture and industrial sector in India. (BT level 2)
3. **Explain** problems of MSME sector and PSEs of India. (BT level 2)
4. **Illustrate** LPG policies, achievements and failures of five year plans in India, and traditional functions of the RBI. (BT level 2)

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Characteristics of Indian Economy; <b>National Income:</b> Composition, trend and pattern of national income, method of estimation and problem areas, Inequality in national income distribution- inter personal and inter regional,	<b>9</b>
<b>II.</b>	<b>Agriculture:</b> Role, nature and cropping pattern; Causes of low productivity and measures to increase production and productivity; Rural indebtedness;	<b>9</b>
<b>III.</b>	<b>Industry:</b> Industry in pre-plan period, second five year plan and Indian industry, industrial policy- 1956 and 1991, importance and problems of MSME sector, Public sector undertaking- importance and problems.	<b>9</b>
<b>IV</b>	Economic Reforms in India, LPG policies; Impact of globalization; Role of Foreign Capital Economic Planning: Background, objectives, Achievements, and failures, NITI Ayog. Commercial Banks in India, Role of RBI- Traditional, Promotional and development functions.	<b>9</b>
<b>TOTAL</b>		<b>36</b>

**Text Books:**

- *Indian Economy*; Dhar, P K; latest edition; 2017; Kalyani Publishers ; New Delhi

**Reference Books:**

- Datt and Sundharam; *Indian Economy*; Latest edition; 2017; S chand Company; New Delhi
- Mishra & Puri; *Indian Economy*; latest edition; 2017; Himalayan Publishing House; New Delhi

## 5<sup>th</sup> Semester

### Semester – V (Core Courses)

**Paper I/Subject Name: Indian Economy**

**Subject Code: ECO182C501**

**L-T-P-C – 4-0-0-4**

**Credit Units: 4**

**Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)**

**Course Objective:**

The objective of the course is to

- Introduce students to major trend in economic indicators in India.

- Introduce Policy Measures
- Challenges of the economy.

**Course Outcomes:**

On completion of this course students will be expected to

- **Recall** features of Indian Economy
- **Understand** trends of the economy
- **Explain** Challenges and policy measures of Indian economy.

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>National Income:</b> Composition, trend and pattern of national income, method of estimation and problem areas, Inequality in national income distribution- interpersonal and inter-regional, Strategies of Balanced Regional Development.	<b>8</b>
<b>II.</b>	<b>Agriculture:</b> Role, nature and cropping pattern; production and productivity trend, causes of low productivity and measures to increase production and productivity; colonial legacy, Green revolution, land reforms, problems of agricultural marketing in India-Problems and remedial measures; Institutional and non-institutional finance; rural indebtedness; post 1991 scenario; Role of RRBs, Micro Finance, Role of NABARD	<b>12</b>
<b>III.</b>	<b>Industry:</b> Industry in the pre-plan period, second five-year plan and Indian industry, industrial policy- 1956 and 1991, importance and problems of MSME sector, public sector undertaking- importance and problems. Disinvestment in India, Industrial sickness, Service sector in India, Start-Ups in India.	<b>10</b>
<b>IV</b>	Economic Reforms in India, LPG policies; Impact of globalization; Role of Foreign Capital Economic Planning: Background, objectives, Achievements and failures, NITI Ayog. Commercial Banks in India, Role of RBI- Traditional, Promotional and development functions.	<b>10</b>
<b>TOTAL</b>		<b>40</b>

**Text Books:**

- *Indian Economy*; Dhar, P K; latest edition; 2017; Kalyani Publishers ; New Delhi, Datt & Sundharm's *Indian Economy*, published by S. Chand, current Edition

**Reference Books:**

- Mishra & Puri; *Indian Economy*; latest edition; 2017; Himalayan Publishing House; New Delhi
- Rao, C H Hanumantha; *Agriculture, Food Security, Poverty and Environment- Essays on Post-reform India*; latest edition; latest edition; Oxford University Press, Delhi
- *Indian Economy since Independence* by Uma Kapila published by Academic Foundation , New Delhi. 31<sup>st</sup> Edition 2020-2021.

<b>Semester – V (Core Courses)</b>
<b>Paper I/Subject Name: Development Economics</b> <b>Subject Code: ECO182C502</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

### Course Objective:

The objectives of the course are to introduce students the indicators of economic development, theories of growth and development. Economic development is a process of targeted activities and programs that work to improve the economic wellbeing and quality of life of a community. This course is designed to introduce the theories of economic growth and development.

### Course Outcomes:

On completion of this course students will be expected to

1. **Recall** the growth theories of an economy.
2. **Understand** the complex relations among the economic variables.
3. **Explain** strategies development.

### Detailed Syllabus:

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Economic Growth and Economic Development – their meaning and differences; Common Characteristics of Underdeveloped or Developing Countries; Obstacles to Economic Development: Measurement of Economic Development – GDP/GNP (Gross Domestic Product/Gross National Product), PCI (Per Capita Income), PQLI (Physical Quality of Life Index), HDI (Human Development Index) – as an indicator of economic development, Multi-dimensional Index.	<b>10</b>
<b>II.</b>	Theories of Economic Growth – Harrod-Domar Growth Model The Neo-Classical Theory of Growth – R. M. Solow's Model. Endogenous growth model Cambridge Models of Growth – Kaldor's Model, Joan Robinson's Model.	<b>10</b>
<b>III.</b>	Development Theories – Classical Theories of Economic Growth, Marx's Theory of Economic Development; Myrdal's Cumulative Causation. Rostow's Stages of Economic Growth; Schumpeter's Theory of Development.	<b>10</b>

<b>IV</b>	Strategies for Development – The Theory of the Big Push; Critical Minimum Effort and Low Level of Equilibrium Trap. Theory of Balanced Growth- Nurkse’s Theory; Theory of Unbalanced Growth – Hirschman’s Strategy; Theories of Social and Technological Dualism; Lewis Model of Economic Growth; Fei-Ranis Model of Economic Growth	<b>10</b>
<b>TOTAL</b>		<b>40</b>

**Text Books:**

- *Economic Development*; Todaro and Smith; 8<sup>th</sup> edition; Pearson Education; New delhi

**Reference Books:**

- Ahuja, H. L.; *Development Economics*, 6<sup>th</sup> edition; 2014; S. Chand Publishing; New Delhi
- Ray, Debraj; *Development Economics*; 4<sup>th</sup> edition; 2012; Oxford University Press; New Delhi
- Misra & Puri; *Economics of Development and Planning*; 5<sup>th</sup> edition; 2015; Himalaya Publishing House; New Delhi

Semester – V (DSE)
<b>Paper /Subject Name: Welfare Economics</b> <b>Subject Code: ECO182D501</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

The objective of the course is to introduce students to theories and principles relating to welfare economics.

**Course Outcomes:**

On completion of this course students will be expected to

- **Recall** origin of welfare economics
- **Understand** Peroto optimality and its role economic analysis.
- **Explain** modern Theories given by Kaldor, Hicks and Scitovosky
- **Estimate** externalities, social cost, and its calculation.

**Detailed Syllabus:**

Module	Topics	Maximum number of classes
--------	--------	---------------------------

<b>I</b>	<p><b>Welfare Economics-</b> Meaning, definition, Social welfare functions – Value judgment and welfare.</p> <p><b>Pre-Paretian Welfare Economics</b> Benthamite Approach to Aggregate Welfare; Optimum Resource Allocation and Welfare , -Maximization, Assumption of Uniform Income; Pigouvian Approach.</p> <p>Utility Function of Individuals; Question of Income Distribution; Issue of Interpersonal Comparisons of Utility; Marshallian Welfare Economics; Consumer’s Surplus; Measurement of Consumer’s Surplus – Marshallian and Hicksian Consumer surplus — Difficulties involved and criticisms.</p>	10
<b>II</b>	<p><b>Paretian Welfare Economics -I</b> Pareto optimality — Marginal Conditions, Concept of contract curve; Top level optimum; Infinite number of non- comparable optima vs. unique social optimum.</p>	10
<b>III</b>	<p><b>Paretian Welfare Economics -II</b> Compensation Criteria - Kaldor and Hicks; The Scitovsky’s double criterion; Concept of community indifference map, Samuelson’s utility possibility curve; Bergson’s social welfare function, Arrow’s Impossibility Theorem.</p>	10
<b>IV</b>	<p><b>Recent Developments in welfare Economics</b> Divergence between private and social costs; Problems of non-market interdependence; Externalities of production and consumption; External economies and diseconomies; Problem of public goods; Second - best optima; Marginal cost pricing; Social Cost- benefit analysis; Interdependent utilities; Attempts to develop dynamic welfare analysis.</p>	10

**Text-Book:**

- *An Introduction to Welfare Economics*; Per Olov Johansson; 4<sup>th</sup> edition; 2009; Oxford Press University.

**Reference Books:**

- Baumol, W.J.; *Welfare Economics and the Theory of the State*; Second Edition; 2011; Longmans, London.
- Broadway, R.W. and N. Bruce; *Welfare Economics*; 2<sup>nd</sup> edition; 1986; Basil Blackwell, Oxford.

<b>Semester – V (DSE)</b>
<b>Paper /Subject Name: Assam and North-East Economy</b>
<b>Subject Code: ECO182D502</b>



**L-T-P-C – 4-0-0-4**

**Credit Units: 4**

**Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)**

### Course Objective:

The objectives of the course are to introduce students the economic issues of Assam and north-east Economy. It is important for the students to study their own economy at local level. Thus, this course will enable the students of Economics to know about their local economy- description, issues, economic development, availability of resources etc.

### Course Outcomes:

On completion of this course students will be expected to:

- **Recall** economic history of Assam and North-East.
- **Understand** about economic challenges of this region.
- **Prepare** a comparative study of Northeast economy with the nation as a whole.

### Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
I.	Economic development of Assam in the pre—independence period;-- agriculture in Assam in the pre-independence period; Industry in the pre-industry period;--Tea, Petroleum, Coal, village and Cottage industries. Infrastructural development of Assam—river transport, roadways, railways, Development of Power.	10
II.	Agriculture and Land reforms; Land use Pattern, Cropping Pattern; Role and importance of Agriculture in Assam’s economy; Food production and its yield; Slow pace of modernization of Agriculture and transfer of technology in Assam; Causes of low agricultural yield; Suggestions and remedies to increase agricultural production; Agricultural marketing; Agricultural Finance in Assam; Agricultural holdings and land reforms in Assam; Development and potential of Irrigation in Assam	10
III.	Industrialisation in Assam ; Trends of Industrial production; Role of organized and unorganized industrial sector in Assam; Contribution of Manufacturing sector to state income; Achievements of the industrial sector in Assam; Industrial policy of Assam; Important industries of Assam—tea, petroleum, plywood, paper mill; fertilizer, Jute, Sugar mill, Cement Industry, Coal, Leather etc—Large scale and medium scale industries, Small scale , Village and cottage industries; Agro-based industries; Assam Industrial Development Corporation; Industrial Finance, NEDFI, AFC, Micro-finance; Low rate of industrial development in Assam—Causes and remedies. .Economic Reforms and industrial development in Assam. Micro Finance in Assam	10
IV	Salient features of the economy of N.E.R., Physical features of different states of N.E.R., Basic characteristics of the economies of the different states of the NER, main problems of Economic Development in the different states & factors responsible for these problems. Economic Development of the different states of the NER, Economic development of the NER in the Pre-independence era, natural resources	10

	of the different states – mineral resources, forest resources, water resources, power resources, State Income of the different states of NER Role of NEDFI, AFC and DONER Ministry.	
<b>TOTAL</b>		<b>40</b>

**Text Books:**

The Economy of Assam; Dhar, P. K.; 8<sup>th</sup> edition; 2007; Kalyani publishers; Guwahati

<b>Semester – V (DSE)</b>
<b>Paper /Subject Name: Human Resource Management</b> <b>Subject Code: ECO182D503</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

The objectives of the course is to introduce students to understand issues relating to human resource development.

**Course outcomes:**

On completion of this course students will be expected to:

- **Recall** the Approaches o human resource management.
- **Understand** planning of man-power and HDI
- **Explain** methods of selection procedure of employees, absenteeism, rewards and incentives.

**Detailed Syllabus:**

<b>Module</b>	<b>Topics</b>	<b>Maximum number of classes</b>
<b>I</b>	Nature of Human Resource Management, Need for H.R.M. Approach, Human Resources approaches, process of Human Resources management, HRM and HRD	12
<b>II</b>	Human Capital Formation, indicators, problems and Issues , Human Capital formation in less developed countries, Human development index. Human Resources Planning and Man Power planning	10

<b>III</b>	Human Relations: Nature, objectives, Determinants; perception income group behaviors Approaches to Human relations, values, concepts of Human relations approach – performance appraisal in H.R.M. purpose and methods.	10
<b>IV</b>	Human Resources Management: Recruitment and sources, Methods, Selection procedure: absenteeism, labour turnover, employees training, steps; rewards and incentives – Determinants and types; motivation –types, methods of increasing motivation, theories (Traditional and Modern)	8

**Text-Books:**

- *Essentials of Human Resources Management and Industrial Relations*; Subba Rao ; 2<sup>nd</sup> edition; 2017; Himalaya Publishing House; New Delhi

**Reference Books:**

- Willam B. Werther: *Human Resources and Personnel Management*, 3<sup>rd</sup> edition; 2016; Mc.Graw Hill
- Dwivedi R.S.: *Human Relations and Organizational Behaviors - Global perspective*, 3<sup>rd</sup> edition; 2014 Mac-Millan India; New Delhi

<b>Semester – V (DSE)</b>
<b>Paper /Subject Name: Indian Economy- Pre-Independence Period</b> <b>Subject Code: ECO182D504</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

The objective of the course is to enable students to have knowledge of the scenario of Indian economy during colonial rule.

**Course Outcomes:**

On completion of this course students will be expected to learn

- **Recall** background of Indian economy within the colonial period
- **Understand** change of agrarian structure.
- **Explain** nature of industrialization during British period

**Detailed Syllabus:**

<b>Module</b>	<b>Topics</b>	<b>Maximum number of classes</b>
<b>I</b>	<b>Introduction: Colonial India: Background and Introduction</b> Pre- British Period; Overview of colonial economy; National Income; population; occupational structure	8

<b>II</b>	<b>Agriculture</b> Agrarian structure and land relations; agricultural markets and institutions – credit, commerce and technology; trends in performance and productivity; famines.	12
<b>III</b>	<b>Railways and Industry</b> Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labor relations.	10
<b>IV</b>	<b>Economy and State in the Imperial Context</b> The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy – changes and continuities; government and fiscal policy.	10

**Text Books:**

- *The Economic History of India 1857-1947*; Tirthankar Roy, 3rd edition, 2011; Oxford University Press,.

**Reference Books:**

- Dharma Kumar (editor), *Occupational Structure*, The Cambridge Economic History of India, Vol. II, (henceforth referred to as CEHI), 2005, Chapter
- Lakshmi Subramanian, “*History of India 1707-1857*”, Orient Blackswan, 2010, Chapter 4.

<b>Semester – VI (Core Courses)</b>
<b>Paper /Subject Name: International Economics</b> <b>Subject Code: ECO182C601</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

International economics is a field concerned with economic interactions of countries and effect of international issues on the world economic activity. It studies economic and political issues related to international trade and finance. The objective of the course is to introduce students to International Economics as a distinct branch of economics.

**Course Outcomes:**

On completion of this course students will be expected to:

- **Recall** theories of international economics, international dependence and flow of goods and services.
- **Understand** terms of trade, gains from trade etc. which are essential to evaluate international market, the structure of Balance of Payments, flow of funds, foreign exchange etc.
- **Compare** difference between free trade and protectionist.

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	International Economics as a distinct branch of Economics; Its Nature and Scope Trade Theories- Ricardian Theory of Comparative Cost Advantage; Factor Endowments and Heckscher- Ohlin Theory; Empirical Test of H-O Mode I- Leontief Paradox; Factor Intensity Reversal	<b>10</b>
<b>II.</b>	Concepts of Terms of Trade; Factors affecting Terms of Trade; Gains from Trade; Offer Curves, Distribution of gains from trade in terms of Offer Curves, Trade as an Engine of Growth	<b>10</b>
<b>III.</b>	Free Trade and Protection- Arguments for and against Free Trade and protection; Tariffs- Classifications of Tariffs, Effects of Tariffs- Partial Equilibrium analysis, Concept of Optimum Tariff and Retaliation; Quotas- Types, Effects; Tariffs versus Quotas.	<b>10</b>
<b>IV</b>	The Structure of BOP; Accounting Principle; Disequilibrium in BOP- Types of Disequilibrium; Causes of Disequilibrium; Adjustment Mechanism- Correction under Fixed and Flexible Exchange Rate regimes	<b>10</b>
<b>TOTAL</b>		<b>40</b>

**Textbooks**

- *International Economics* ; Dominick Salvatore; 4<sup>th</sup> edition, 2014; Wiley India

**Reference**

- Francis Cherunilam; *International Economics* ; Tata Mc Graw- Hill; Delhi, 2012
- K. C. Rana and K. N. Verma, *International Economics* , Vishal Publishing Company; 2011

<b>Semester – VI (Core Courses)</b>
<b>Paper /Subject Name: Environmental Economics</b> <b>Subject Code: ECO182C602</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

**Environmental economics** is a subset of economics concerned with the efficient utilization of resources. Because the environment provides both direct value and the raw material intended for economic activity, the environment and the economy are interdependent. For that reason, the way the economy is managed can have an impact on the environment that, in turn, may affect both welfare and the performance of the economy. The objective of the course is to introduce students to concepts, methods and policy options in managing the environment using tools of economic analysis.

**Course Outcomes:**

On completion of this course students will be expected to-

- **Relate** relationship between economics and issues of the environment.
- **Understand** the concept of sustainable development, its issues and policy measures relating to it.

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	What is environmental economics, The Environment-Economy Interaction, the Materials Balance Model, and laws of Thermodynamics; Basic concepts of resource economics; natural capital and equity approach. Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem	<b>10</b>
<b>II.</b>	Overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty.	<b>10</b>
<b>III.</b>	Trans-boundary environmental problems; Porter Hypothesis, Pollution Haven Hypothesis, economics of climate change- Concept only. Non-Market values and measurement methods; risk assessment and perception.	<b>10</b>
<b>IV</b>	Sustainable Development: Concepts, Concepts of Strong and weak sustainability; Rules of sustainable development; National Environmental policy & International convention.	<b>10</b>
<b>TOTAL</b>		<b>40</b>

**Textbooks:**

- *Intermediate Environmental Economics*, Charles Kolstad, 2<sup>nd</sup> edition, 2014, Oxford University Press,

**Reference Books:**

- Robert N. Stavins (ed.), *Economics of the Environment: Selected Readings*, W.W. Norton, 5th edition, 2005.
- Roger Perman, Yue Ma, James McGilvray and Michael Common, *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, 3rd edition, 2003.

<b>Semester – VI (DSE)</b>
<b>Paper /Subject Name: Applied Econometrics</b> <b>Subject Code: ECO182D601</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

### Course Objective:

Econometrics is the use of statistical techniques to understand relationship between economic variables, to evaluate economic policy, and test theories. Without evidence, economic theories are abstract and might have no bearing on reality. Econometrics is a set of tools we can use to confront theory with real-world data. It provides the tools to enable the students to extract useful information about important economic policy issues from available data.

### Course Outcomes:

On completion of this course students will be expected to-

- **Understand** the advanced Econometric theories.
- **Understand** the application of econometric model to test economic theories.
- **Relate** econometric models to ip between economic variables.
- **Use** of econometric model to evaluate economic policy.

### Detailed Syllabus:

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	<b>Time Series Analysis-</b> <b>Lab session</b>	<b>10</b>
<b>II.</b>	<b>. Dynamic Econometric Models:</b> Lags in Econometric models: Concepts of distributed lag models; autoregressive models Lags in Econometric models-Concepts, Koyck model; Partial adjustment and adaptive expectation models <b>Lab session</b>	<b>10</b>
<b>III.</b>	<b>. Regression Diagnostics and Specification</b> Misspecification: functional forms, model selection <b>Lab session</b>	<b>10</b>
<b>IV</b>	<b>Advanced Topics in Regression Analysis</b> Selected Topics: instrumental variable estimation, Simultaneous model, difference-in-difference equation model <b>Lab session</b>	<b>10</b>
<b>TOTAL</b>		<b>40</b>

### Text books:

- Jeffrey M. Wooldridge, *Econometrics*, CENGAGE learning, India Edition, 2009.

### Reference Book

- *Econometrics by Example*; Damodar Gujarati, 4<sup>th</sup> edition; 2011; Palgrave Macmillan..
- Dimitrios Asteriou and Stephen Hall, *Applied Econometrics: A Modern Approach*, Palgrave Macmillan, 2007.
- Kmenta, Jan; *Elements of Econometrics*; 2<sup>nd</sup> edition, 2017; University of Michigan Press; London

Semester – VI (DSE)
<b>Paper /Subject Name: Economics of Health and Education</b>
<b>Subject Code: ECO182C602</b>
<b>L-T-P-C – 4-0-0-4</b>
<b>Credit Units: 4</b>
<b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

### Course Objective:

It is essential to understand the relationship between health and education and its effects on economic development in the developing world. Human Capital in its broadest sense encompasses the levels of education, health, and nutrition of the population. Few processes are as intertwined with development as human capital accumulation. Education increases productivity, speeds technological advancements, and increases the probability of more healthy productive children, all of which promotes economic development.

The primary objective of the course is to introduce students to understand economics of health and education sectors.

### Course Outcomes:

On completion of this course students will be expected to:

- **Learn** about economic foundation of health and education sectors.
- **Understand** the role investment in human capital formation and its impact on economic development of an economy.

### Detailed Syllabus:

Modules	Topics (if applicable) & Course Contents	Periods
I.	<b>Role of Health and Education in Human Development</b> Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.	10
II.	<b>Microeconomic Foundations of Health Economics</b> Demand for health; uncertainty and health insurance market; alternative insurance mechanisms; market failure and rationale for public intervention; equity and inequality. <b>Evaluation of Health Programs</b> Costing, cost effectiveness and cost-benefit analysis; burden of disease.	10
III.	<b>Education: Investment in Human Capital</b> Rate of return to education: private and social; quality of education; signalling of human capital; theories of discrimination; gender and caste discrimination in India.	10



IV	<b>Health Sector in India: An Overview</b> Health outcomes; health systems; health financing	10
	<b>Education Sector in India: An Overview</b> Literacy rates, school participation, school quality measures.	
<b>TOTAL</b>		<b>40</b>

**Text books:**

- *Principles of Health Economics for Developing Countries*, William, Jack, World Bank Institute Development Studies, 1999.

**Reference Books:**

- World Development Report, *Investing in Health*, The World Bank, 1993.
- Ronald G., Ehrenberg and Robert S., Smith, *Modern Labor Economics: Theory and Public Policy*, Addison Wesley, 2005.

Semester – VI (DSE)
<b>Paper /Subject Name: History of Economic Thought</b> <b>Subject Code: ECO182C603</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

History of Economic Thought as the title implies deals with the origin and development of economic ideas and their interrelations. It is a historical account of economic doctrines. The prime objective of the course is to introduce the students the development and evolution of economic theories in the world.

**Course Outcomes:**

On completion of this course students will be expected to-

- **Recall** different schools in the process of developing economic theories and principles.
- **Compare** of different ideas. It will enable a person to have a well-balanced and reasonable judgement.

**Detailed Syllabus:**

Modules	Topics (if applicable) & Course Contents	Periods
I.	Nature and Importance of Economic Thought. Mercantilism: views on Trade, Money and Prices Physiocracy: Natural Order; Net product and Circulation of Wealth. Classical Political Economy. Adam Smith: Theories of Value and Distribution. <b>Ricardian Economics</b> : Value Analysis, Theories of Trade and Distribution. <b>J S Mill</b> : Theory of Value, Views on Production and Distribution. Classical Stationary State with special reference to Mill's views.	10

<b>II.</b>	<b>Marxian Economics:</b> Historical Materialism, Theory of Value, Theory of Capital Accumulation, Theories of Crisis. <b>Marginalist Revolution-</b> Jevon, Walras and Menger. A General Overview of Marshall's Contribution	<b>10</b>
<b>III.</b>	Features of <b>Neo-classical</b> economics. <b>J.M Keynes</b> and his contribution. Welfare Economics: <b>Arrow</b> and Social choice Theory. Rational Expectation Models and the New Classical Macro Economics	<b>10</b>
<b>IV</b>	<b>Indian Economic thought-</b> Main themes of Kautilya's Arthasashtra; Modern Economic Ideas: Dada Bhai Naoroji, Ranade, Gokhle; M.K. Gandhi's ideas on —Village, Swadeshi, Khadi, Cottage Industries and place of Machine, Welfare of Labour, Non-violent Economy, Decentralisation, Trusteeship, Sarvodaya	<b>10</b>
<b>TOTAL</b>		<b>40</b>

### **Textbooks**

- *A History of Economic Thought*; Roll, Eric; Fifth edition; 1992; Fiber and Fiber; London

### **Reference book:**

- Guide, C. & C. Rist: *A History of Economic Doctrine.*; New edition; 2015; Creative Media Partners;
- Bhatia, H,L.: *History of Economic Thought*; 5<sup>th</sup> edition; 2015; Vikas Publishing House, Delhi

<b>Semester – VI (DSE)</b>
<b>Paper /Subject Name: Labour Economics</b> <b>Subject Code: ECO182C604</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

### **Course Objective:**

The study of labor economics seeks to understand the relationship between workers and employers. It's important to society as it determines wages, the causes of discrimination, the impact of migration on employment, and how governments should manage recessions. The objective of the course is to introduce students to understand theories relating to labour.

### **Course Outcomes:**

On completion of this course students will be expected to:

- Learn about unemployment- its causes and types.
- Learn about role of trade unions in determining wage rate.
- Learn about the status of discrimination, impact of migration and social security of labour.

**Detailed Syllabus:**

<b>Modules</b>	<b>Topics (if applicable) &amp; Course Contents</b>	<b>Periods</b>
<b>I.</b>	Nature and characteristics of Labour Markets in developing countries like India; Classical, neoclassical and dualistic theories of labour markets; Analysis of demand and supply of labour; Mobility and Productivity of labour ; Methods of recruitment and placement.	<b>10</b>
<b>II.</b>	Unemployment : Concepts, Causes and Measurement ; Employment Policy in Five year Plans and its evaluation, Classical, neo-classical and bargaining theories of wage determination ; Concepts and causes of wage differentials ; Productivity and wage relationship.	<b>10</b>
<b>III.</b>	Growth, Structure and pattern of trade unionism ; Causes of Industrial disputes; methods of settlement; Collective bargaining, conciliation; arbitration and labour participation in management; Growth, pattern and structure of labour unions in India.	<b>10</b>
<b>IV</b>	State and social security of labour in India; Problem of child labour Labour market reforms: Exit policy and measures imparting flexibility in labour markets; Globalisation and labour markets	<b>10</b>
<b>TOTAL</b>		<b>40</b>

**Text-books**

- *Economics of Labour*; Lester, R.A.; 2<sup>nd</sup> Edition, 1964; Macmillan,;New York

**Reference Books**

- Papola, T.S., P.P.Ghosh and A.N.Sharma (Eds) (1993), *Labour, Employment and Industrial Relations in India*, B.R.Publishing Corporation, New Delhi.
- Venkata Ratnam, C.S.(2001), *Globalization and Labour-Management Relations : Dynamics of Change*, Sage Publications / Response Books, New Delhi.

<b>Semester – VI (DSE)</b>
<b>Paper /Subject Name: Industrial Economics</b> <b>Subject Code: ECO182C605</b> <b>L-T-P-C – 4-0-0-4</b> <b>Credit Units: 4</b> <b>Scheme of Evaluation: Theory – Semester End Examination (70%) + Continuous Evaluation (30%)</b>

**Course Objective:**

The objective of the course is to introduce students to theories of firms and industries.

## Course Outcomes:

On completion of this course students will be expected to:

- **Recall** theories of firm
- **Understand** various issues of investment.
- **Explain** how technical change and market structure can influence industrialization.

## Detailed Syllabus:

Module	Topics	Maximum number of classes
I	<b>Theory of the Firm</b> Undifferentiated Products-Cournot, Stackelberg, Dominant firm model, Bertrand -Heterogeneous products -Chamberlin's small and large number case -Kinked demand curve theory-Bain's limit pricing-Sales and growth maximization hypothesis -Managerial theories of the firm-Game theoretical models.	10
II	<b>Investment Decisions</b> Conventional and modern methods -Risk and uncertainty -Sensitivity analysis-Financial statements and ratio analysis -Inflation accounting-Project appraisal methods -Industrial finance - Sources of finance - Capital structure-Incentive, Structure-Incentives-signaling and control arguments-Separation of ownership and control	10
III	<b>Vertically Related Markets and Competition Policy</b> Successive and mutually related market power- Monopoly, variable proportions and price discrimination - Monopsony and backward integration - Uncertainty -Diversification, rationing and cost economics and asset specificity-Internal hierarchies-Hierarchies as information systems-Incentive structures and internal labour markets-Supervision in hierarchies-Competition policy: Need and requirements-Mergers and acquisitions-Coordination with other policies	10
IV	<b>Product market Differentiation and Imperfect Information</b> Lancastrian and Hotelling approaches-representative consumer approach and Chamberlin's model of diversity of tastes-The address approach-Competition in address-Free entry -Pure profit and non-uniqueness in free entry equilibrium -product diversity and multi address firms - Bargains and ripoffs-Theory of sales -Quality and reputations - Product variety -Imperfect discrimination and price dispersions -Advertising - Dorfman Steiner condition - Lemons and information asymmetries. <b>Technical Change and Market Structure</b> The Economics of patents - Adoption and diffusion of innovations - Innovations and rivalry : Kamien and Schwartz -Measures of concentration Concentration ratio -Hirschman -Herfindahl index-Entropy measure - Structure conduct 2 performance paradigm - Contestable markets - Fixed costs, Sunk costs and contestability - Stackelberg -Spence- Dixit model	10

## Text-Books

- Industrial Economics – Issues and Perspectives, Ferguson, Paul R. and Glenys J. Ferguson; 1994 Macmillan, London.

**Reference Books:**

- Ahluwalia, I. J; Industrial Growth in India Stagnation since Mid-sixties, 1985; Oxford University Press, New Delhi.

<b>Semester – VI (SEC)</b>
<b>Paper /Subject Name: Advanced Microsoft Excel</b> <b>Subject Code: ECO182S611</b> <b>L-T-P-C – 0-4-0-2</b> <b>Credit Units: 2</b> <b>Scheme of Evaluation: Practical</b>

**Course Objective:**

Microsoft Excel is one of the most used products of Microsoft office. It is used for data entry, data analysis, data presentation, or calculation. The best thing about Microsoft Excel is that this totally depends on your skill level. You can use MS Excel for any beginner or advanced level task it will be equally efficient & easy to use in either case.

This MS Excel course is Advance Level or Expert Level training especially for **engineers, data analysts, data scientists, students, teachers, or researchers**, or for anyone who has basic or intermediate level Microsoft Excel knowledge & now wants to learn Advance Level, MS Excel.

**Course Outcomes:**

On completion of this course students will be expected to:

- Use of Pivot Tables & Charts
- **Understand** how to analyse data.
- **Learn** how to import & consolidate the data.
- **Learn** about Charts & Tables

**Detailed Syllabus:**

<b>Module</b>	<b>Topics</b>	<b>Maximum number of classes</b>
<b>I</b>	Difference between Excel 2003, 2007 and 2010,2013,2016, Use of Excel, its boundaries & features <b>Basic Formula</b> Formulae that Add / Subtract / Multiply / Divide $\propto$ BODMAS / Formula Error Checking, The Sum Function <b>Absolute Referencing</b> Problems with Absolute / Relative Cell Referencing, Creating Absolute / Mixed References	5
<b>II</b>	The VLOOKUP/ HLOOKUP Functions	5

	<b>PivotTables</b> Creating, Formatting Simple PivotTables Page Field in a PivotTable ∅ Formatting a PivotTable ∅ Creating / Modifying a PivotChart	
<b>III</b>	<b>Statistical Functions</b> Using The SUMIF / COUNTIF Functions ∅ Using The AVERAGE / COUNT / LARGER / SMALLER Functions <b>Microsoft Excel Charts</b> The Average Function The Date Function 3 Time Functions in Excel A Time table Project Financial Projects The Student Averages Project	5
<b>IV</b>	<b>Importing &amp; Exporting Data</b> Importing Data from Database / Text Files / Web Exporting Data ∅ Changing External Data Range <b>Conditional Logic</b> in Excel The IF Function Conditional Formatting in excel. Count IF, Count IFS 4 SUMIF, SUMIFS	5

#### Text-Books

- Advanced Excel Essentials, Jordan Goldmeire; 2019; Apress, India

#### Reference Books:

- Manish Nigam ; Data Analysis with Excel, BPB Publications; First edition (1 January 2019), India