# CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU



*vidya dadati vinayam* (Education gives humility)

B.Sc. (Hons) Programme In Economics

Program Structure Syllabus Teaching and Evaluation Regulations (With effect from the 2018-2021 Batch)

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## CENTRAL UNIVRSITY OF ANDHRA PRADESH, ANANTHAPURAMU B.A. (Hons) Economics

In pursuance of the University Grants Commission (UGC) scheme based on Choice Based Credit System (CBCS) to provide students mobility across institutions by increasing the quality, efficiency and excellence based higher education as a part of college/university education leading to Bachelor of Science(Hons.) Degree, The University has decided to introduce the Choice Based Credit System (CBCS) degree programme leading to the award of B.Sc. (Hons.)Degree in Economics.

The study of economics involves an analytical look at how scarce resources are allocated to various areas of production. It emphasizes the importance of making choices between desirable alternatives. The study of economics provides tools to make these choices in such areas as employment, economic growth, price stability, and trade. The bachelor of science in economics is especially suited for students who wish to combine a major in economics with concentrated study in other disciplines. This program provides students with a meaningful educational experience that is suitable for employment in a wide variety of occupations in business or government, and for continued study in graduate schools in economics, business, and other fields.

## **Objectives of the Programme**

At the end of the programme, the student should be able to:

- 1. Have an overview of all the relevant areas of Economics
- 2. A command of basic characteristics of the Indian and global economy by using this knowledge to critically evaluate economic outcomes;
- 3. A command of basic economic theory by using this theory to make predictions and to analyze alternative economic policy options;
- 4. The ability to communicate in both oral and written forms by presenting arguments and evidence clearly and concisely;
- 5. The ability to engage in and understand moral reasoning with respect to economic issues by recognizing the implicit value conflicts present in all economic policy debates;
- 6. The ability to engage in problem solving using basic economic theory;
- 7. The ability to engage in critical thinking as a part of the analysis of economic problems.

## Central University of Andhra Pradesh Semester wise Distribution of Credits and Contact Hours B.Sc. (Hons) Economics

G N	Course The fill of		Number	<b>Contact Hours</b>		
S.No.	Code	Title of the Course	of Credits	L	Т	S/P
Semes	ter - I		<u> </u>	I		
1		Introductory Microeconomics	6	55	15	20
2		Mathematical Methods for Economics-I	6	55	15	20
3		English	4	45	10	5
4		Statistical Methods for Economics	6	55	15	20
		Total	22	210	55	65
Semes	ter - II					
1		Introductory Macroeconomics	6	55	15	20
2		Mathematical Methods for Economics-II	6	55	15	20
3		Environmental Science	4	45	10	5
4		Applied Statistics	6	55	15	20
		Total	22	210	55	65
Semes	ter – III					
1		Intermediate Microeconomics-I	6	55	15	20
2		Intermediate Macroeconomics-I	6	55	15	20
3		Probability and Statistical Methods for Economics	6	55	15	20
4		IT- Basic skills		24	18	18
5		Public Finance	6	55	15	20
		Total	28	244	83	93
Semester – IV						
1		Intermediate Microeconomics-II	6	55	20	15
2		Intermediate Macroeconomics-II	6	55	20	15
3	3 Introductory Econometrics		6	55	20	15
4		IT- Software Applications and R- Programming	4	24	18	18
5		Economics of Information	6	55	20	15
		Total	28	244	83	93
Semes	ter - V			1	-	1
1		Indian Economy-I	6	55	15	20
2		Development Economics-I	6	55	15	20
3		Applied Econometrics	6	55	20	15
4	Money and Financial Economics		6	55	20	15
Total			24	220	70	70
Semes	ter - VI			1		
1		Indian Economy-II	6	55	15	20
2		Development Economics-II	6	55	15	20
3		International Economics	6	55	20	15
4		Dissertation	6	55	20	15
Total 24 220 70 7					70	

Central University of Andhra Pradesh Course Structure for B.Sc. (Hons) Economics

Core Course			
S.No.	Courses	Title	Credits
1.	Core - 1	Introductory Microeconomics	6.00
2.	Core - 2	Mathematical Methods for Economics-I	6.00
3	Core - 3	Introductory Macroeconomics	6.00
4	Core - 4	Mathematical Methods for Economics-II	6.00
5	Core - 5	Intermediate Microeconomics-I	6.00
6	Core - 6	Intermediate Macroeconomics-I	6.00
7	Core -7	Probability and Statistical Methods for Economics	6.00
8	Core - 8	Intermediate Microeconomics-II	6.00
9	Core - 9	Intermediate Macroeconomics-II	6.00
10	Core -10	Introductory Econometrics	6.00
11	Core - 11	Indian Economy-I	6.00
12	Core - 12	Development Economics-I	6.00
13	Core - 13	Applied Econometrics	6.00
14	Core - 14	Money and Financial Economics	6.00
15	Core - 15	Indian Economy-II	6.00
16	Core - 16	Development Economics-II	6.00
17	Core -17	International Economics	6.00
Total Credits102.00			

Ability Enhancement Compulsory Course (AECC)			
S.No.	Courses	Title	Credits
1	Ability Enhancement Compulsory Course (AECC)-I	English/Hindi/ MIL Communication	4.00
2 Ability Enhancement Compulsory Course (AECC)-2 Environmental Science			4.00
Total Credits 8.0			8.00

	Skill Enhancement Course (SEC)		
S.No.	Courses	Title	Credits
1	Skill Enhancement Course (SEC)-1	IT- Basic skills	4.00
2	Skill Enhancement Course (SEC)-2	IT- Software Applications and R- Programming	4.00
Total Credits			8.00

	Generic Elective (GE) Course			
S.No.	Courses	Title	Credits	
1	Generic Elective (GE) Course-I	Statistical Methods for Economics	6.00	
2	Generic Elective (GE) Course-2	Applied Statistics	6.00	
3	Generic Elective (GE) Course-3	Public Finance	6.00	
4	Generic Elective (GE) Course-4	Economics of Information	6.00	
Total Credits			24.00	

Semester	Total Credits	Cumulative Credit at the end of the Semester
Semester I	22	22
Semester II	22	44
Semester III	28	72
Semester IV	28	100
Semester V	24	124
Semester VI	24	148

## **Credit Distribution Structure**

- Assessment Pattern: 40% of internal
   [Formative evaluation -- two best out of three tests (for a maximum of 15 marks each = 30 marks) Seminar/assignments/attendance (10 marks)]
- Summative Evolution 60% of end semester exam.

## **TEACHING AND EVALUATION REGULATIONS**

## **Special features**

The special features of the University's academic set up include a flexible academic programme that encourages interdisciplinary courses. The assessment of examinations of the Undergraduate and Postgraduate courses is continuous and internal.

## Semester system

The courses are organized on the semester pattern. The academic year consists of two semesters of 16 to 18 weeks each. July – December is the Monsoon and January – June is the winter semester.

## **Continuous internal assessment**

The examination system of the University is designed to test systematically the student's progress in class, laboratory, and field work through continuous evaluation in place of the usual "make or mar" performance in a single examination. Students are given periodical tests, short quizzes, home assignments, seminars, tutorials, term papers in addition to the examination at the end of each semester. A minimum of three such assignments/tests are administered as part of the internal assessment process

## Attendance and progress of work

A minimum attendance requirement of 75% of the classes actually held in each course (at least 60% if the same course is repeated for writing the end-semester examinations, and for visually challenged students) and participate, to the satisfaction of the Academic Unit, in seminars, sessional's and practical's as may be prescribed, mandatory. Absence from classes continuously for 10 days shall make the student liable to have his/her name removed from the rolls of the University. Absence on medical grounds should be supported by a certificate which has to be submitted soon after recovery to the respective Academic Unit. Coordinator can condone the requirement of Minimum attendance up to 5% only for regular or repeat courses.

#### **Evaluation regulations**

- 1. The performance of each student enrolled in a course will be assessed at the end of each semester. Evaluation of all U.G/ P.G is done under the Grading System. There will be 7 letter grades; A+, A, B+, B, C, D and F on a 10 point scale which carries 10,9,8,7,6,5,0 grade points respectively.
- 2. The final result in each course will be determined on the basis of continuous assessment and performance in the end semester examination which will be in the ratio of 40:60 in case of theory courses and 60:40 in laboratory courses (practicals).
- 3. The mode of continuous assessment will be decided by the University. For B.Sc. (Hons.) Economics programme, Continuous assessment will be done for 40 marksand

semester-end examination is conducted for 60 marks. The students will be given a minimum of three units of assessment per semester in each course from which the best two performances will be considered for the purpose of calculating the result of continuous assessment. The record of the continuous assessment will be maintained by the Academic Unit. Three Internal tests will be conducted for 15 marks each, out of which two best of three test scores will be considered for 30 marks. Out of the remaining 10 marks, 5 marks will be awarded for assignments, class presentations and class participation of the student and remaining 5 marks will be awarded for punctuality and attendance of the student.

Marks for attendance will be considered as follows:

95% or more	-	5 Marks
90-94%	-	4 Marks
85-89%	-	3 Marks
80-84%	-	2 Marks
75-79%	-	1 Marks

 Semester end examination pattern contains 4 sections for 60 marks Section A: Student needs to answer 5 out of 8 questions which is assessed for 10 marks (2x5=10 marks)

Section B: Student needs to answer 6 out of 8 questions which is assessed for 30 marks (6x5=30 marks)

Section C: Student needs to answer 2 out of 3 questions which is assessed for 20 Marks (2x10=20 marks)

- 5. At the end of the semester examination, the answer scripts shall be evaluated and the grades scored by each student shall be communicated to the Coordinator, for onward transmission to the Office of the Controller of Examinations. Wherever required, the faculty/ Coordinator may moderate the evaluation.
- 6. (a) Students should obtain a minimum of 'D' grade in each course in order to pass in the Under graduate who obtain less than 'D' Grade in any course, may be permitted to take the supplementary examination in the course/s concerned usually within a week after the commencement of the teaching of the next semester or in accordance with the schedule notified. Appearance at such examinations shall be allowed only once. Those students who get less than 'D' grade in the supplementary examination also shall have to repeat the course concerned or take an equivalent available course with the approval of the Coordinator. Such approval should be obtained at the beginning of the semester concerned.

(b) In order to be eligible for award of medals/prizes and ranks etc., the students should complete the course within the prescribed duration without availing supplementary or repeat examinations. Further, Grade value obtained in the supplementary/ repeat/improvement examination shall not be taken into account for the said purpose. Candidates attempting in Supplementary/Improvement exams are also not eligible for medals.

(c) Medals are awarded to only those who have passed/completed the course in that current academic year only.

- 7. A student of UG/ PG, is expected to clear more than 50 % of the courses offered in that semester in order to be promoted to the next semester A student may have a maximum of two backlogs where the number of the courses in a semester are four and a maximum of three backlogs where the number of courses in a semester are more than four at any given point of time including the backlogs of the previous semester, if any.
- 8. Students who are permitted to appear in supplementary examinations in course/s in accordance with clauses 6(a) above will be required to apply to write the examination concerned in the prescribed form and pay the prescribed examination fee by the date prescribed for the purpose.
- 9. (a) A student in order to be eligible for the award of BA/BSc/M.A/ B.Voc Courses must obtain a minimum of 'D' grade in each course. The results of successful candidates will be classified as indicated below on the basis of the CGPA: CGPA of 8.0 and above and up to 10.0 I Division with Distinction CGPA of 6.5 and above and < 8.0 I Division CGPA of 5.5 and above and < 6.5 II Division CGPA of 6.0 II Division with 55% CGPA of 5.0 and above and < 5.5 III Division (b) To satisfactorily complete the programme and qualify for the degree, a student must obtain a minimum CGPA of 5. There should not be any 'F' grades on records of any student for making himself/herself eligible for award of the degree. The division obtained by a student will be entered in his/her provisional cum consolidated grade sheet and in the Degree certificate.</p>
- 10. No student shall be permitted to take a supplementary examination for the second time of the same course except in the case of one repeating the entire course.
- 11. Students who are not found eligible to take semester examinations and also those who are not promoted to the next semester of the course may be considered for readmission to the concerned semester of the immediately following academic year. Such students should seek readmission before the commencement of the classes for the concerned semester or within a week of the commencement of the concerned semester if they are appearing in the supplementary examinations. Such students are given an option either to undergo instruction for all the courses of the semester concerned or to undergo instruction in only such courses in which they have failed on the condition that the option once exercised will be binding on the student concerned.
- 12. At the specific written request of the student concerned, answer scripts of the semester examinations may be shown to him/her, but not returned to the candidates. The result of the continuous assessment of the students will, however, is communicated to students immediately after the assessment.
- 13. In the case of a request for re-evaluation of end-semester examination answer books, the Academic Unit shall constitute a Grievance Committee consisting of 3 or 4

teachers to examine the complaints received from the students of the School regarding their assessment. Such requests from the students should reach the Coordinator, within 15 days of the announcement of the results.

Note: If a student is not satisfied with the evaluation by the Academic Unit level Grievance Committees, the Coordinator, on a request from the student may refer the matter to the Controller of Examinations for getting the paper evaluated by an external examiner, whose evaluation will be final. The fees for external evaluation in all such cases shall be Rs. 500/- per paper which shall be paid by the student concerned.

14. (a) Students absenting themselves after payment of fees from a regular semester examination are permitted to appear in the supplementary examination subject to fulfilling the attendance requirement. The application for the supplementary examination in the prescribed form along with the prescribed fee should reach the office of the Controller of Examinations through the Coordinator by the date prescribed.

(b) Students may opt an audit/Extra course within the Academic Unit or outside, provided he/she fulfils 75% of attendance requirement and the regular internal assessments for an audit/Extra course for including it in the additional grade sheet.

(c) Option once exercised for audit/extra courses shall be final.

#### **Improvement examination**

- i) The facility for improvement shall be open to all students securing 'D' grade and above and who want to improve their grade irrespective of the CGPA obtained by them. However, one should clear all courses of a particular semester in which he/she intends to take an improvement examination. Appearance at such examination in the course will be allowed only once. One can improve a maximum of four courses of their respective programmes as detailed below: One course at the end of the first semester, two courses at the end of the second semester, three courses (to be taken from 1st & 3rd semesters) at the end of the third semester and four courses at the end of the fourth semester. No further chance will be given under any circumstances.
- ii) The improvement examinations will be conducted along with the supplementary examinations within a week of the commencement of the teaching of the next semester or as per the schedule prescribed.
- iii) For the purpose of determining the Division, the better of the two performances in the examinations will be taken into consideration.
- iv) The grade sheet of a student will indicate full information of the examinations taken by him/her. Both the Grades obtained in the 1<sup>st</sup> and 2<sup>nd</sup> attempts will be shown in the grade sheets.
- v) The Application for improvement examination in the prescribed form along with the prescribed Examination Fee should reach the office of the Controller of Examinations

within a week of the commencement of the teaching of the next semester through the Academic Unit by the prescribed date.

vi) Students who have completed the course without availing the improvement facility in accordance with the schedule prescribed by the University are allowed to avail the unavailed chances within a maximum period of six months after completion of the course. Such exams are to be taken when the regular or supplementary/improvement exams are held.

## **Special Supplementary Examinations:**

The UG Students who after completion of the prescribed duration of the course are left with backlogs are eligible to appear for special supplementary exams subject to a maximum of two courses where number of courses in a semester are four and a maximum of three courses where the numbers of courses in a semester are more than four. Appearance in such exams shall be allowed only once. Special supplementary exams are to be conducted when the regular supplementary/ improvement exams are held.

**Note:** Supplementary and Special Supplementary examinations cannot be written in same semester.

## **`GRADE SHEET**

Letter Grade	<b>Grade Points</b>	Range of % of Marks
A+	10	75 and above
А	9	65 to <75
B+	8	60 to <65
В	7	55 to <60
С	6	50 to <55
D	5	40 to <50
F	0	39 and below

#### Qualitative

#### Quantitative

Letter Grade	<b>Grade Points</b>	<b>Range of % of Marks</b>
A+	10	85 and above
А	9	75 to <85
B+	8	70to <75
В	7	60 to <70
С	6	50 to <60
D	5	40 to <50
F	0	39 and below

	CENTRAL UNIV	ERSITY OF ANDHRA PRADESH
B.Sc. (Hons) Economics Programme		Course Instructor:
Semester: I		
Course Code:	EC-101	
Core/ Optional:	AECC	Title of the Course:
No. of Credits:	4.00	Effective Communication Skills
Lectures:	45 Hours	
Tutorials:	10 Hours	
Seminars/Projects:	05 Hours	

## **Objectives:**

- To strengthen the Upper Intermediate level English language skills of students. It is a skill rather than a content subject.
- > To help them communicate and cope with their academic needs.

## **Unit-1: Introduction to English Pronunciation:**

English Sounds - Word Accent – Intonation.

#### **Unit-II: Listening comprehension**

Variety of texts.

## Unit III: Speaking

To be able to speak clearly and present their ideas logically - Presentation skills - Arguing or debating - Phone conversations.

#### Unit IV: Reading and Writing skills

To promote local and global comprehension of different kinds of texts suitable to the intermediate level - Identifying the main idea and supporting details - Analyse and sort information - Distinguish between relevant and irrelevant ideas. To be able to write coherently and grammatically correct paragraphs - Paragraph writing-Summarizing- Organization of ideas - Making an outline.

#### **Unit V: Vocabulary and Grammar**

Using appropriate vocabulary to express regular activities, feelings, ideas - Phrasal verbs - Idioms - Content Related Vocabulary. Tense and Aspect - Voice - Interrogatives - Modal verbs

#### **References:**

- 1. <u>Adrian Doff</u> and <u>Christopher Jones</u>. Language in use Intermediate, Classroom Book. C.U.P. 2014.
- 2. Any other material that the teacher thinks essential for the class

	CENTRAL UNIVI	ERSITY OF ANDHRA PRADESH
<b>B.Sc.</b> (Hons) Economics Programme		Course Instructor:
Semester: I		
Course Code:	EC-102	
Core/ Optional:	GE	Title of the Course:
No. of Credits:	6.00	Statistical Methods for Economics
Lectures:	55 Hours	
Tutorials:	15 Hours	
Seminars/Projects:	20 Hours	

## **Course Objectives**

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It also introduces the practical knowledge on appropriate software. The main objectives of the course follow;

- To develop the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions.
- > To introduces the notion of sampling distributions that act as a bridge between probability theory and statistical inference.
- > This course also introduces the practical knowledge on appropriate software.

#### **Course Outline**

## **Unit I:Introduction and Overview**

The distinction between populations and samples and between population parameters and sample statistics; the use of measures of location and variation to describe and summarize data; population moments and their sample counterparts.

#### **Unit II: Elementary Probability Theory**

Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence.

## **Unit III: Random Variables and Probability Distributions**

Defining random variables; probability distributions; expected values of random variables and of functions of random variables; properties of commonly used discrete and continuous distributions (Uniform, Binomial, Exponential, and Normal random variables).

## Unit IV:Random Sampling and Jointly Distributed Random Variables

Density and distribution functions for jointly distributed random variables; computing expected values; covariance and correlation coefficients.

### **Unit V:Sampling**

Principal steps in a sample survey; methods of sampling; the role of sampling theory; properties of random samples.

## **Unit VI:Point and Interval Estimation**

Estimation of population parameters using methods of moments and maximum likelihood procedures; properties of estimators; confidence intervals for population parameters.

#### **Textbooks:**

- 1. Mood Alexander., Introduction to the Theory of Statistics, McGraw Hill.
- 2. Goerge W Snedecor., Statistical Methods., Iowa State University Press.

- 1. Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning, 2010.
- 2. Hooda R.P., "Statistics for Business and Economics", 2nd edition, Macmillan India Ltd., 2010.
- 3. David S. Moore., The basic practice of statistics- W.H. Freeman & Company
- 4. S.P. Gupta. Statistical methods. Sulthan Chand and sons. Latest Edition.

	<b>CENTRAL UNIVERSITY OF ANDHRA PRADESH</b>				
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:		
Semester: I					
Course Code	:	EC-103			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Introductory Microeconomics		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

## **Course Objectives**

- This course is designed to expose the students to the basic principles of microeconomic theory.
- > The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

## **Course Outline**

#### **Unit I: Introduction to Economics**

(a) Scope and method of Economics, Defining Economics, Microeconomics and Macroeconomics, Normative Economics and Positive Economics. (b) Understanding the basic principles of Economics. Production Possibility Frontier, interdependence and gains from trade.

#### Unit II: Concept of Demand and Supply, and Elasticity

(a) Concept of demand, Law of Demand, Determinants of individual demand and market demand, movement along and shift of supply curve. (b) Concept of Supply and Law of Supply, Factors influencing supply. Determination of equilibrium price in a competitive market. (c) Concept and importance of elasticity. Methods of calculation – Point elasticity and arc elasticity method. (d) Demand and supply elasticities – types of elasticity, factors affecting elasticity, demand elasticity and revenue. Long run and short run elasticities of demand and supply. (e) Income and cross-price elasticity.

#### Unit III: Theory of Consumer Behaviour and Producer Behaviour

(a) Cardinal and Ordinal Utility, Cardinal approach – total and marginal utility, Law of equi-marginal utility, Theory of demand. (b) Ordinal Utility – assumptions, preferences, indifference curves, marginal rate of substitution and convexity of Indifference Curves, budget constraint and consumer equilibrium, derivation of demand curves from ICs. (c) General concept of production function, Short run and long run, total, average and marginal product. (d) Law of Diminishing Returns, Returns to factor and returns to scale. (e) Iso-quants, Iso-cost line, marginal rate of technical substitution, cost concepts, short run, and long run costs, and cost curves, firm's equilibrium. Economies of scale.

#### Unit IV: Theory of the firm and market structures - Perfect Competition

(a) Firms and profit maximization. Perfect competition – short run supply curve of the firm and industry, short-run competitive equilibrium of the firm, long run competitive equilibrium of the firm. (b) Consumer and Producer Surplus, welfare and efficiency of competitive equilibrium. (c) Government intervention and deadweight loss. Price ceiling and price floor.Market adjustment with government intervention.Taxes and subsidies.Elasticity and tax incidence.

#### Unit V:Imperfect competition and Input market under Perfect Competition

(a) Monopoly, oligopoly, monopolistic competition. (b) Derived demand, productivity of an input, marginal product and marginal revenue product. (c) Marginal productivity theory of distribution. (d) Labour market – supply of labour, competitive labour markets. (e) Land markets and rent.

#### Unit VI: Externalities, Public Goodsand Social Choice

Market Failure, Externalities and Social Costs, Tragedy of the Commons, Free Rider Problem.

#### **Textbooks:**

- 1. Case, Fair and Oster, *Principles of Economics*, Prentice Hall, 11<sup>th</sup> edition, 2014.
- 2. Lipsey, R.G. and Chrystal, K.A., *Economics*, Oxford University Press, 13<sup>th</sup> edition.

#### **References:**

- 1. Mankiw, N.G. Principles of Economics, Cengage Learning. 7<sup>th</sup> edition, 2015.
- 2. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc.,
- 3. New York, International Student Edition, 4th Edition, 2007.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:		
Semester: I					
Course Code	:	EC-104			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Mathematical Methods for Economics-I		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

#### **Course Objectives**

The B.Sc. (Hons) in Economics includes two courses in basic mathematics – one in each semester of I and IIsemester. This is the first of these two courses.

- > The course is designed to build the mathematical foundations of the students by equipping them with basic mathematical methods that are essential for learning and working with economic theories and models and are also required for statistics and econometrics courses that come later in this programme.
- The course introduces the students to a bare minimum language of sentimental/predicate logic and the meaning and structure of proofs in economic models.

## **Course Outline**

#### **Unit I: Preliminaries**

(a) Sets and Operations, (b) Numbers; Combinatorics-principles of counting; Series and progressions; Compounding, discounting and rate of growth; (c) Vectors: basic operations on vectors; (d) Basic ideas in predicate logic – operations; types of proof of a proposition; use of universal and existential quantifiers.

#### Unit II: Relations, Functions, and Set of Points

Relations, functions and correspondences; Binary relations and their properties. Binary relations and ordering of sets; sequence of points and convergence of sequences; bounds, bounded sets; closed and open sets, compacts sets; connected and convex sets.

#### **Unit III: Functions of one Variable**

Graph of a function; types of functions – linear, polynomial (including quadratic), exponential, logarithmic, and periodic functions

#### Unit IV: Limit, Continuity and Derivatives

Limit, Continuity and Derivatives of a function of one variable; higher order derivatives; intermediate value and mean theorems; Concave and convex functions;

zeroes of a function, critical values and stationary points. Optimization in one variable: absolute and relative optima. Polynomial approximation and Taylor expansion.

## **Unit V: Integration**

Concept; Rules and techniques of integration of functions of one variable; Indefinite and definite integrals; Integration with respect to several variables; Applications to consumer's surplus and producer's surplus.

#### **Unit VI: Difference Equations**

Will give full understanding of Discretefunctions.

#### **Textbooks:**

- 1. Chiang, A.C. and Kevin Wainwright: *Fundamental Methods of Mathematical Economics*, McGraw Hill, 4<sup>th</sup> Edition, 2004.
- 2. Sydsaeter, Knut, Peter Hammond, Arne Strom, and Andre's Carvajal: *Essential Mathematics for Economic Analysis*, Pearson, 5<sup>th</sup> edition, 2016.

- 1. Klein, Erwin: Mathematical Methods in Theoretical Economics, Academic Press
- 2. Simon, Carl P and Lawrence Blume: *Mathematics for Economists*, Viva Books, 2010.



## CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU

## Tentative Time Table B.Sc., (Hons.) Economics: I Semester (W.e.f., 2020)

Day	9:00 AM -11:00 AM	11:00 AM- 1:00 PM		2:00 PM-4:00PM
Monday	IM	BS		ME-I
Tuesday	IM	ENG	B	ME-I
Wednesday	BS	ENG	E	ME-I
Thursday	BS	IM	A K	CS
Friday	CS	CS		CS
Saturday	CS	CS		CS

IM: Introductory Microeconomics---ME-I: Mathematical Methods for Economics-I ---ENG: Effective Communication Skills BS: Basic Statistics---CS: Class Seminar

Dean

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:	
Semester: II				
Course Code	:	EC-151		
Core/ Optional	:	GE	Title of the Course:	
No. of Credits	:	6.00	Applied Statistics	
Lectures	:	45 Hours		
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

#### **Course Objectives**

This course is an extension of what students learnt in the previous semester.

- > Gives an understanding of sampling survey which are essential for research
- Introduce Time series components and Forecasting
- > Gives an understanding on Index Numbers and Interpolation.

#### **Course Outline**

#### **Unit I:Design of Sample Surveys**

Introduction to sampling – Parameters – Statistics - Sampling and Non-Sampling Errors – Sampling Distribution – Standard Error – Advantages and Disadvantages of Sampling

#### Unit II: Sampling

Types of Sampling –(i) Simple Random Sampling – Estimation of Mean and Variance (ii) Stratified Random Sampling (iii) Systematic Sampling (iv) Multi-Stage and Multi-Phase Sampling (v) Cluster Sampling (vi) Area Sampling (vii) Quota Sampling (viii) Snowball Sampling.

#### **Unit III: Time Series Analysis**

Introduction – Components of Time Series – Determination and Elimination of Trend – Linear and Non – Linear (i) Second Degree Parabola and Exponential Curves – Measurement of Seasonality – Cyclical and Random Components – Models of Time Series –Forecasting Methods.

#### **Unit IV: Index Numbers**

Introduction – Problems involved in the construction of Index Numbers – Types of Index Numbers – Fisher Ideal Index Number – The Criteria of Good Index Number – Base Shifting, Splicing and Deflating of Index Numbers.

#### **Unit V: Interpolation and Extrapolation**

Introduction – Assumptions – Definitions – Methods – (i) Graphical (ii) Algebraic Methods - Interpolation and Extrapolation Methods - Simple Examples.

## **Text Books:**

- 1. S.C. Gupta and V.K. Kapoor "Fundamentals of Applied Statistics", Sultan Chand and Sons, Educational Publishers, New Delhi, Third Revised Edition, Reprint: 2003.
- 2. D.R. Agarwal "Elementary Mathematics and Statistics for Economists", Vrinda Publications (P), New Delhi, Reprint: 2002.

## **Reference Book:**

1. A.N. Arora, P.N. Arora and Sumeet Arora "Comprehensive Statistical Methods", Sultan Chand and Co. Second Edition.

	(	CENTRAL UNIVERSITY OF ANDHRA PRADESH				
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:			
Semester: II						
Course Code	:	EC-152				
Core/ Optional	:	AECC	Title of the Course:			
No. of Credits	:	4.00	Environmental Science			
Lectures	:	45 Hours				
Tutorials	:	10 Hours				
Seminars/Projects	:	5 Hours				

## **Course Objectives**

The course is designed for the B.Sc. (Hons) Economics. The core Module Syllabus for Environment Science includes class room teaching and Field Work.

- The aim of the course is to educate the students about the importance of environment and its protection, and environmental concerning sustainable development.
- It introduces the multidisciplinary nature of environment and it comprises natural resource, ecosystems, biodiversity, and its conservation.
- It also discusses about the environmental pollution Acts, social issues associated to environment, human population, and the environment.

## **Course Outline**

#### **Unit I: Introduction to Environmental Science**

(a)Definition, scope, importance, and multidisciplinary nature of Environment;Concept sustainable development;Introductionto spheres;Institutions and people in environment. (b) Concept of an ecosystem; Structure and function of an ecosystem; Producers, consumers and decomposers; Energy flow in the ecosystem; Ecological succession; Food chains, food webs and ecological pyramids; Function of (i) Forest, (ii) Grassland, (iii) Desert (iv) Aquaticecosystem:

#### **Unit II: Natural Resources**

Renewable and non-renewable resources;Natural resources and associated problems-(a) Forest resources (b) Water resources (c)Mineral resources (d) Food resources (e) Energy resources (f) Land resources.

#### **Unit III: Biodiversity and Conservation**

Concept of Biodiversity; genetic, species, and ecosystem diversity; Biogeographical classification of India; Value of biodiversity; Biodiversity at global, national and local levels; India as a mega-diversity nation; Hot-sports of biodiversity; Threats to biodiversity: Endangered and endemic species of India; Conservation of biodiversity: In-situ and Ex-situ conservation.

#### **Unit IV: Environmental Pollution and Social Issues**

(a)Cause of pollution, effects and control measures of the following (i) Air, (ii) Water (iii) Soil (iv)Marine (v) Noise (vi) Thermal (vii) Nuclear hazards(viii)Solid waste of urban and industrial wastes; Pollution case studies. (b) Environment Laws: International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).(c)Disaster management (d)Urban problems related to Environment (e)Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

#### **Unit V: Human Population and the Environment**

Population growth, variation among nations; Family Welfare Programme; Environment and human health; Human Rights; Value Education; HIV/AIDS; Women and Child Welfare; Role of Information Technology in Environment and human health; Case Studies.

#### **Unit VI: Field Work**

Visit local area to document environmental assets, polluted sites, and ecosystems, etc.

#### **Textbooks:**

- 1 Erach Bharucha.Textbook of Environmental Studies for Undergraduate Courses, Universities press (India) Private Limited, Hyderabad, Telangana, India,2018.
- 2 Agrawal, KM, Sikdar, PK and Deb, SC., A Text book of Environment, Macmillan Publication,2002.
- <sup>3</sup> MahuaBasu and Xavier, S., Fundamentals of Environmental Studies, Cambridge University Press, Delhi, India, 2016.

- 1 Rajagopalan, R., Environmental Studies- from crisis to cure, Oxford University Press, New Delhi, India,2016.
- <sup>2</sup> Mitra, A. K, and Chakraborty, R. 2016, Introduction to Environmental Studies, Book Syndicate, 2016.
- <sup>3</sup> Enger, E. and Smith, B., Environmental Science: A Study of Interrelationships, Publisher: McGraw-Hill Higher Education; 12th edition,2010.
- 4 Y.K. Singh, Environmental Science, New Age International Pvt. Ltd, Delhi.
- 5 Basu, R.N. 2000, Environment, University of Calcutta, 2006.
- 6 Misra, SP and Pande, SN., Essential Environmental Studies (3rd Edition), Ane Books Pvt. Ltd, 2011.
- 7 Ghosh Roy, MK. 2011, Sustainable Development (Environment, Energy and Water Resources), Ane Books Pvt. Ltd,2011.
- 9 Richard T Wright. 2008, Environmental Science: Towards a Sustainable Future, Prentice-Hall Inc.
- 10 Mitra, A.K, Bhttacharya, S. and Saha, D, Environmental Studies, St. Xavier's College, Kolkata, 2007.

	CENTRAL UNIVERSITY OF ANDHRA PRADESH				
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:		
Semester: II					
Course Code	:	EC-153			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Introductory Macroeconomics		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

## **Course Objectives**

The course is designed for the B.Sc. (Hons) Economics. This main objective of the course is;

- To introduce the students to the basic concepts of Macroeconomics which deals with the aggregate economy.
- It discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

### **Course Outline**

#### Unit I: Introduction to Macroeconomics and National Income Accounting

Fundamental issues studied in macroeconomics; measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; national income accounting for an open economy; balance of payments: current and capital accounts.

#### **Unit II: Basic of Classical Framework**

Classical ideas on determination of output and employment in the short run: Say's Law of Markets; Quantity theory of money; classical dichotomy; Self-regulation of markets and full employment; classical theory of rate of interest and Wicksell's version of the quantity theory.

### **Unit III: Fundamentals of Keynesian Economics**

Keynes' critique of the classical theories; attack on self-regulation of markets; classical dichotomy and full-employment equilibrium. Keynes theory of effective demand; consumption function, multiplier; Keynes' theory of rate of interest – liquidity preference; theory of investment – marginal efficiency of capital.

#### Unit IV: The Closed Economy in the Short Run

Classical and Keynesian systems; simple Keynesian model of income determination; ISLM model; fiscal and monetary multipliers.

## **Unit V: Money and Inflation**

Functions of money; quantity theory of money; determination of money supply and demand; credit creation; tools of monetary policy.Inflation and its social costs; hyperinflation.

## **Textbooks:**

- 1. N. Gregory Mankiw. Macroeconomics, 9<sup>th</sup> edition, Cengage learning.
- 2. Richard T. Froyen, Macroeconomics, Pearson Education

- 1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill
- 2. Errol D'Souza, Macroeconomics, Pearson Education
- 3. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics, Pearson Education

	CENTRAL UNIVERSITY OF ANDHRA PRADESH				
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:		
Semester: II					
Course Code	:	EC-154			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Mathematical Methods for Economics – II		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

## **Course Objectives**

The course is designed for the B.Sc. (Hons) Economics. This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is;

- To transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics, and econometrics.
- > To obtain economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general.

## **Course Outline**

#### **Unit I: Differential equations**

Introduction to the Differential Equations: characterisations, properties with respect to various operations and applications.

#### Unit II: Linear algebra

Vector spaces: algebraic and geometric properties, scalar products, norms, orthogonality; linear transformations: properties, matrix representations and elementary operations; systems of linear equations: properties of their solution sets; determinants: characterization, properties and applications.

#### **Unit III: Functions of several real variables**

Geometric representations: graphs and level curves; differentiable functions: characterizations, properties with respect to various operations and applications; second order derivatives: properties and applications; the implicit function theorem, and application to comparative statics problems; homogeneous and homothetic functions: characterizations and applications.

#### **Unit IV: Constrained optimization**

Convex sets; geometric properties of functions: convex functions, their characterizations, Properties and applications; further geometric properties of functions: quasiconvex functions, their characterizations, properties and applications.

## **Unit V: Unconstrained optimization**

Unconstrained optimization: geometric characterizations, characterizations using calculus and applications; constrained optimization with equality constraints: geometric characterizations, Lagrange characterization using calculus and applications; properties of value function: envelope theorem and applications.

### **Textbooks:**

1. K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.

#### **Reading:**

1. Chiang A G and Kevin Wein Wright, *Fundamental Methods of Mathematical Economics*, McGraw Hill Education.



## CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU

## Time Table B.Sc., (Hons.) Economics: II Semester (W.e.f., 2020)

Day	9:00 AM -11:00 AM	11:00 AM- 1:00 PM		2:00 PM-4:00PM
Monday	ME-II	ES		AS
Tuesday	ME-II	AS	B	ME-II
Wednesday	IM	CS	E	CS
Thursday	IM	ES	A K	AS
Friday	IM	CS		CS
Saturday	CS	CS		

ME-II: Mathematical Methods for Economics---AS: Applied Statistics ---IM: Introductory Macro Economics----AECC: Environment Science---CS: Class Seminar

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	CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc. (Hons) Economics Programme</b>			Course Instructor:		
Semester: III					
Course Code	:	EC-201			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Intermediate Macroeconomics-1		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

## Objectives

- Introduces students to formal modeling of the macroeconomics terms of analytical tools.
- Discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context.
- Introduces students to various micro-founded theories of macro behavior, e.g., consumption and investment behavior of households and the demand for money generated in the household sector.

### **Course Outline**

## Unit I: Introduction to Macroeconomics and National Income Account

Basic issues studied in macroeconomics; measurement of gross domestic product; Value-added, income, expenditure methods and the circular flow; real versus nominal GDP; GDP deflator, price indices.

#### Unit II: The Closed Economy in the Short Run

Classical and Keynesian systems; Classical Theory -Say's Law. Classical theory of money – Quantity Theory of Money, Cambridge Approach. Determination of equilibrium output and employment. Money, wages and interest rates –Loanable Funds Theory. Classical Dichotomy and Neutrality of money.

#### Unit III: The Keynesian theories

The Keynesian theories Keynesian Consumption function, Aggregate demand, Simple Keynesian model of income determination, Simple Keynesian Multiplier, Paradox of Thrift, Role of Money, Interest and Income –Liquidity preference theory, IS-LM Model in a Closed Economy –Policy effectiveness. IS-LM Model in an Open Economy –Policy Effectiveness.

#### Unit IV: Aggregate Demand and Aggregate Supply Curves

Derivation of aggregate demand and aggregate and supply curves; interaction of aggregate demand and supply. Derivation of aggregate demand assuming price flexibility, derivation of aggregate supply curves in the presence and absence of wage rigidity.

## **Unit V: Effects of Fiscal and Monetary Policies**

Equilibrium, stability and comparative statics – effects of fiscal and monetary policies. Unemployment equilibrium and its causes including real balance effect.

#### **Textbooks:**

- 1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
- 2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.

- 1. Felderer-Homburg, Macroeconomics and New Macroeconomics, Springer-Verlag, 2ndedition, 1987.
- 2. Richard Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
- 3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
- 4. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
- 5. Errol. D'Souza, Macroeconomics, Pearson Education, 2009.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
<b>B.Sc.</b> (Hons) Economics Programme			Course Instructor:		
Semester: III					
Course Code	:	EC-202			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Intermediate Microeconomics I		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

## **Objectives**

- The course is designed to provide a sound training in microeconomic theory using a mathematical approach.
- This course looks at the behaviour of the consumer and the producer, covers the behaviour of a competitive firm, and introduces the concept of Monopoly.

## **Course Outline**

#### Unit I: Introduction to Budget Constraints, Preference and Substitution

The rational economic agent, Budget constraints under various scenarios, Preference, well behaved preferences, Marginal rate of substitution

#### **Unit II: Utility Theory**

Utility, cardinal utility, Indifference curves, marginal utility, choice, optimal choice, demand; income offer curves and Engel curves, Revealed preferences, WARP and SARP

#### Unit III: Slutsky Equation and Intertemporal Choice

Slutsky equation, substitution and income effect, buying and selling, net and gross demand, choice under risk, Slutsky equation and intertemporal choice.

### **Unit IV: Theory of Production**

Technology, production, production functions, isoquants, production with one and more variable inputs, returns to scale, Cost minimization, Profit maximization

#### **Unit V: Theory of Costs**

Average and marginal costs, cost curves in the short run and long run.

#### **Unit VI:Perfect and Imperfect Markets**

Market environment, Perfect competition, introduction to imperfect markets: The monopolistic firm.

## **Textbooks:**

- 3. Hal R. Varian, Intermediate Microeconomics: A Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8th edition, 2010.
- 4. A Koutsoyiannis, Modern Micro Economics, Pagrave Publishers, Indian Edition.

- 6. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
- 7. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGraw-Hill (India), 2009.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:		
Semester: III					
Course Code	:	EC-203			
Core/ Optional	:	SEC	Title of the Course:		
No. of Credits	:	4.00	Fundamentals of Computer Skills		
Lectures	:	24 Hours			
Tutorials	:	18 Hours			
Seminars/Projects	:	18 Hours			

## **Objectives**

- Give students an in-depth understanding of why computers are essential components in business, education and society.
- Introduce the fundamentals of computing devices and reinforce computer vocabulary, particularly with respect to personal use of computer hardware and software, the Internet, networking and mobile computing.
- Provide hands-on use of Microsoft Office applications Word, Excel and PowerPoint. Completion of the assignments will result in MS Office applications knowledge and skills.

## **Course Outline**

#### **Unit I: Computer Fundamentals**

Components of a computer system. Classification of computers. Types of computers. Brief history of evolution of computers and generation of computers. Computer hardware and software. Input/output devices, internet and web surfing etc. Personnel Computers: PC & Types of Computers, Primary & Secondary storage device, other peripherals used with PC.

#### **Unit II: Data Processing**

Types, Data processing cycle, Computers in Business.

## Unit III: Data Communication & Networks

Introduction of Communication, Communication Medias, Communication Modes, Goals of Networks, Types of Networks, Client/Server Computing, Network Topologies, MODEM, Gateways, Multiplexer, Bridges, Routers. Ethernet. Internet, WWW etc.

## Unit IV: MS Office

Focus is on teaching how to use Office suite properly.

a. MSWord: The following features are explored for MSWord

i. Templates using existing templates and creating new templates.

- ii. Complex Tables, Use of Pictures with text flowing around the picture, Sectioning, Captioning, Cross Referencing, Table of Contents.
- iii. Using Equation editor for complex equations, Multiple Column format documents.

## **Unit V: MS Excel & PowerPoint**

Using complex equations for combining data, VLOOKUP function, Excel charts, Excel Sort, Excel Filter, Pivot Table.

MSPowerPoint: Using Animations and Transitions.

## **Textbooks:**

1. V Rajaraman, Fundamentals of Computers, PHI, Sixth Edition, 2014

#### **Reference Books:**

1. Efraim Turban, R. Kelly Rainer Jr, Richard E. Potter, Introduction to Information Technology, John Wiley & Sons, (Asia) Pvt. Ltd. Singapore, 2004.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
B.Sc. (Hons) Econ	om	ics Programme	Course Instructor:		
Semester: III					
Course Code	:	EC-204			
Core/ Optional	:	<b>Generic Elective</b>	Title of the Course:		
No. of Credits	:	6.00	Probability and Statistics for		
Lectures	:	55 Hours	Foonomics		
Tutorials	:	15 Hours	Economics		
Seminars/Projects	:	20 Hours			

## CourseObjectives

- This is a course on Probability and Statistical for Economics provide the students a concise introduction on probability and statistics with practical application.
- > It explains a basic concepts and terminology that are fundamental to statistical analysis and inference.

#### **Course Outline**

#### **Unit I: Introduction to Probability Concepts**

Axioms of probability, sample spaces, Counting Techniques, Conditional probability, Independent events, Bayes Theorem, Random variable (r.v.), discrete r.v.s, mathematical expectations

#### **Unit II: Probability Generating Functions**

Bernoulli and Binomials, moment generating functions, Poisson, Geometric, Negative Binomial, Hypergeometric distributions, Continuous r.v.s, Uniform, Normal distributions, Exponential and Gamma distribution.

#### **Unit III: Joint Distributions and Covariance**

Joint distributions, marginal distributions, covariance, and correlation, Central limit theorem, Standard Normal distribution

#### **Unit IV: Hypothesis Testing**

Testing Hypothesis about mean when Pop. Variance in known, creating confidence intervals, Chi-Square distribution: Comparing Sample Variance with population distribution; Comparing two sample Variances, Student T distribution: Small sample size, population variance unknown.

#### **Unit V: Correlation and Regression**

Hypothesis testing for correlation and regression, Power and size of a test, Pitfalls of Hypothesis testing, Type 1 and Type 2 errors, Analysis of Variance.

### **Textbooks:**

- 3. Robert V. Hogg, Probability and Statistical Inference, 9<sup>th</sup> edition, Hogg and Tanis, Pearson, 2015.
- 4. Morris H. DeGroot, Mark J. Schervish, Probability and Statistics: Pearson New International Edition, Pearson Education Limited, 2013.

### **References:**

- 4. Ross, Sheldon A first course in probability / Sheldon Ross. 8th ed.p. cm. Pearson Education, Inc, 2010.
- 5. William Feller, An Introduction to Probability Theory and its Applications, Ann. Probab. 1,1973.

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc. (Hons) Economics Programme</b>			Course Instructor:	
Semester: III				
Course Code	:	EC-205		
Core/ Optional	:	GE	Title of the Course:	
No. of Credits	:	6.00	Public Finance	
Lectures	:	55 Hours		
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

## **Course Objectives**

The course is prepared for the B.Sc. (Hons) Economics. The aim of the course is to;

- > Introduce the fundamentals of fiscal aspects of public economics.
- > Understand the conceptual and theoretical understanding of taxes.
- Comprehend the efficiency and equity aspects of taxation of the Centre, state and the local governments.

## **Course Outline**

## **Unit I: Introduction**

(a) The State and Economic Activities: Public Goods vs. Private Goods; The Concept of a Mixed Economy; State and Economic Planning.(b) Introduction to Public Finance: Major Fiscal Functions; Distinction between Private and Public Finance; Public Finance and the Economic System.

## **Unit II: Public Revenue**

(a) Main source of Public Revenue- (b) Tax Revenue Distinguished from Non-Tax Revenue – Laffer Curve; Principles of Taxation-Supplements and Latest Additions; Characteristics of a Good Tax Systems; Objectives of Taxation.(c) Division of Tax Burden: Taxable Capacity.

## UnitIII: Incidence, Classification, and Effects of Taxes

(a)The Concept of Forward and Backward Shifting; Tax Capitalization; Theories of Tax Shifting; Incidence of Tax; Deficit Financing as a Hidden Tax-Crowding Out of Private Investment; Problem of Double Taxation (b) Classification of Choice of Taxes and Merits and Demerits; Value Added; Expenditure Tax; Personal Consumption Stabilization; Alternative Measures of Progressivity of the Tax System.

#### **UnitIV: The India Tax System**

Features and Assessment of the Indian Tax System; Comments on Direct Taxation; Tax Evasion and Tax Avoidance - Understanding the Problem; Comments on Indirect Taxation.

#### **UnitV: Indian Federal Finance**

(a)The Federal Finance: The Federal Set up - Fiscal Federalism; Financial Issues, Imbalance, and Adjustment (b) Pre-Independence Evolution; Financial Federalism Under Constitution; Allocation of Functions/Resources; Salient Features of the India Tax System-GST; International Experience. (c) The Finance Commission: Rational, Tax sharing and Grant in Aid.

#### **Unit VI: Public Budget and Public Debt**

(a) Indian Budget and its Features; Concept of a Good Budget; Kinds of Budget-I and II; Classification of State Budgets; Performance and Programme Budgeting System (PPBS); Outcome Budgeting; Zero-Based Budget (b) Balanced Budget; Fiscal Policy Stability, Economic Growth, and Distributive Justice (c) Public Debt and Macroeconomics; Issues in Public Debt.

#### **Textbooks:**

- 1. R.A. Musgrave and P.B. Musgrave, *Public Finance in Theory & Practice*, McGraw Hill Publications, 5th edition, 1989.
- 2. H. Rosen, T. Gayer: Public Finance, 9th ed., McGraw-Hill/Irwin, 2009.
- 3. H. L. Bhatia: *Public Finance*, Vikas Publishing House, 29<sup>th</sup> edition, 2018.
- 4. M. Maria John Kennedy: *Public Finance*, PHL Learning Private Limited, 2012.

- 1. J. Hindriks, G. Myles: Intermediate Public Economics, MIT Press, 2006.
- 2. Joseph E. Stiglitz, *Economics of the Public Sector*, W.W. Norton & Company, 3<sup>rd</sup>edition,2000.
- 3. John Cullis and Philip Jones, *Public Finance and Public Choice*, Oxford University Press, 1<sup>st</sup> edition, 1998.
- 4. J. Slemrod, J. Bakija: *Taxing Ourselves: A Citizen's Guide to the Debate Over Taxes*. MIT Press; 2017
- 5. Y.V. Reddy and G.R. Reddy: *Indian Fiscal Federalism*, Oxford University Press, India, 2019.
- 6. Mahesh Purohit, Value Added Tax: Experiences of India and Other Countries, 2007.
- 7. M. Govinda Rao, Changing Contours of Federal Fiscal Arrangements in India, AmareshBagchi (ed.), Readings in Public Finance, Oxford University Press, 2005.
- 8. Paul Samuelson, 1955, -Diagrammatic Exposition of a theory of Public Expenditure, *Review of Economics and Statistics*, Volume 37.
- 9. Rangarajan and D.K. Srivastava, 2005, —Fiscal Deficit and Government Debt: Implications for Growth and Stabilization", *Economic and Political Weekly*, July2-8.
- 10. M. Govinda Rao, 2011, -Goods and Services Tax: A Gorilla, Chimpanzee or a Genius like Primates?, *Economic and Political Weekly*, February 12-18.



## CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU

## Tentative Time Table B.Sc., (Hons.) Economics: III Semester (W.e.f. 20<sup>th</sup>Aug, 2020)

Day	9:00 AM -11:00 AM	11:00 AM- 1:00 PM		2:00 PM-4:00PM
Monday	IMIE-I	PF		PS
Tuesday	IMIE-I	PF	B	IMAE-I
Wednesday	PF	IMIE-I	E	IT
Thursday	IMAE-I	PS	A K	IT
Friday	IMAE-I	CS		PS
Saturday	CS	CS		CS

PF: Public Finance--- Dr. Raju Chelle: PS: Probability and Statistical Methods for Economics: IMAE-I: Intermediate Macro Economics: IMIE-I: Intermediate Microeconomics: IT: Information Technology CS: Class Seminar:

Dean

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc. (Hons) Economics Programme</b>			Course Instructor:	
Semester: IV				
Course Code	:	EC-251		
Core/ Optional	:	GE	Title of the Course:	
No. of Credits	:	6.00	Economics of Information	
Lectures	:	55 Hours	Economics of finor mation	
Tutorials	:	20 Hours		
Seminars/Projects	:	15 Hours		

## Objectives

- To discuss the strategic behavior of economic actors when they do not have complete information about the problem at hand.
- To monitor the students to familiarized with concepts related to strategic behavior; information transmission; and signaling in economics.
- Practical aspects such as information management; IPR laws and open-source movement shall be discussed.

## **Course Outline**

## **Unit I: Introduction to Concept of Information**

Concept of information; differences between data and information; idea of noise; notion of time; various approaches to analyze information. characteristics of information goods; pricing of information goods; various pricing strategies; information and technology; revisiting the principal-agent problem; adverse selection; moral hazard; marketfor lemons

## **Unit II: Information Efficiency**

Information Efficiency: revealing information through prices; market as an information processing mechanism; aggregating heterogeneous information; efficient market hypothesis and various forms of efficiency; introduction to game theory.

## **Unit III: Expectations in Economics**

Information cascade; the macroeconomics of Information; expectations in economics: Rational expectation hypothesis; Adaptive expectations; introduction to behavioral economics.

#### **Unit IV: Managing Information**

Managing digital information: configuring information goods;bundling;unbundling and rebounding of information; strategies to learn customer preferences. Protecting information: digital rights management;the basic model of DRM

### **Unit V: Time Sensitivity of Information**

Open source vs.proprietary content; the GNU and copy left movement; Creative Commons; time sensitivity of information: various aspects of time such as logical; mechanical and historical time in economics; time and financial markets.

## **Text books:**

- 1. Carl Shapiro, Hal R Varian; Information rules: a strategic guide to the network economy (1<sup>st</sup> Edition), Harvard Business School press, 1999
- 2. Pascal Pettit, Economics of Information (1<sup>st</sup> Edition), Springer, 2001

- 1. Uris Birchler and Monica Butler, Information Economics (1<sup>st</sup> Edition), Routledge, 2007
- 2. Inés Macho-Stadler and David Pérez-Castrillo, An Introduction to the Economics of Information: Incentives and Contracts (2<sup>nd</sup> Edition), Oxford University Press, 2001

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc.</b> (Hons) Economics Programme			Course Instructor:	
Semester: IV				
Course Code	:	EC-252		
Core/ Optional	:	Core	Title of the Course:	
No. of Credits	:	6.00	Intermediate Macroeconomics II	
Lectures	:	55 Hours	intermediate water occonomies in	
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

## **Course Objectives**

This course is a sequel to Intermediate Macroeconomics I. the main objective of the course is;

- Introduced to theoretical developments that followed the Keynesian Revolution. It traces the rise of monetarism, the New Classical and Real Business Cycle theories and New Keynesian Economics.
- Provides the micro-foundations to the various aggregative concepts used in the previous course such as the various theories of consumption, investment, money demand and explores the process of credit creation, money supply and issues related to fiscal policy.

## **Course Outline**

#### **Unit I: Monetarist Theories**

(a) Monetarist Theory – Friedman's Restatement of the Quantity Theory of Money, Natural Rate of Unemployment, Hysterisis.
(b) New Classical Economics – Expectations and Rational Expectations, Phillips Curve, Stagflation, Policy Ineffectiveness Proposition, Lucas Critique.
(c) New Keynesian Economics – Menu Costs, Insider-Outsider Models. Efficiency Wages.
(d) Real Business Cycle Theory.

## **Unit II: Consumption Theories**

Keynesian Theory, Fisher's theory of optimal intertemporal choice, Life-Cycle Consumption Theory, Permanent Income Hypothesis, Random Walk Hypothesis.

#### **Unit III:Investment Theories**

Investment Demand for capital and flow of investment, determinants of business fixed investment; residential investment and inventory investment. Investment and Aggregate Supply.

#### Unit IV:Money Supply and Demand

(a) Money Supply and the Central Bank – Monetary Aggregates, Process of Credit Creation, The Money Multiplier, Tools of Monetary Policy, Lags in Monetary Policy, Indicators and Targets, Dynamic Inconsistency, Rules vs. Discretion. (b) Money Demand –Baumol's Inventory Theoretic Demand for money, Tobin's portfolio choice models.

#### **Unit V:Inflation Theories**

Inflation, Theories of inflation, Headline and core inflation, Hyperinflation, Stagflation.

#### **Unit VI:Fiscal Theory and Policy**

Fiscal Policy - the government budget constraint; government debt and Ricardian equivalence, Automatic fiscal stabilizers, Fiscal deficit, cyclical versus structural deficits.

#### **Textbooks:**

- 1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
- 2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.

## **References:**

- 1. Felderer-Homburg, *Macroeconomics and New Macroeconomics*, Springer-Verlag, 2<sup>nd</sup> edition, 1987.
- 2. Richard Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.
- 3. Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.
- 4. Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc.,7th edition, 2011.
- 5. Errol. D'Souza, *Macroeconomics*, Pearson Education, 2009.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
<b>B.Sc. (Hons) Economics Programme</b>			Course Instructor:		
Semester: IV					
Course Code	:	EC-253			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Intermediate Microeconomics II		
Lectures	:	55 Hours	intermediate whereeconomies if		
Tutorials	:	15 Hours			
Seminars/Projects	:	20Hours			

## Objectives

This course is a sequel to Intermediate Microeconomics I. the main objective of the course is;

- The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning.
- Covers general equilibrium and welfare, imperfect markets and topics under Behavioral Economics.

## **Course Outline**

## **Unit I:Monopoly**

Maximizing Profits, Linear Demand Curve and Monopoly, Markup Pricing, Lerner Index, Inefficiency of Monopoly, Deadweight Loss of Monopoly, Natural Monopoly.

## **Unit II: Monopoly Behaviour**

Price Discrimination, First-Degree Price Discrimination, Second-Degree Price Discrimination, Third-Degree Price Discrimination, Bundling, Peak-load pricing, Two-Part Tariffs, Monopolistic Competition, A Location Model of Product Differentiation, Product Differentiation.

## **Unit III: Factor Markets and Behavioural Economics**

(a) Monopoly: Monopoly in the Output Market, Monopsony, Upstream and Downstream Monopolies.(b)Oligopoly:Choosing a Strategy, Quantity Leadership, Price Leadership, Comparing Quantity Leadership and Price Leadership, Cournot Model, Simultaneous Quantity Setting, Simultaneous Price Setting, Collusion, Punishment Strategies. (c) Behavioural Economics:Framing effects in Consumer Choice, Uncertainty, Time, Strategic Interaction and Social Norms, Assessment of Behavioural Economics.

## Unit IV:Exchange

The Edgeworth Box, Trade, Pareto Efficient Allocations, Market Trade, Equilibrium, Walras' Law, Relative Prices. Efficiency and Equilibrium, Implications of the First Welfare Theorem.

#### **Unit V:Production**

The Robinson Crusoe Economy, Production and the First Welfare Theorem, Production and the Second Welfare Theorem. Production Possibilities, Comparative Advantage, Pareto Efficiency, Decentralized Resource Allocation.

#### Unit VI:Welfare, Externalities, and Public Goods

(a) Aggregation of Preferences, Social Welfare Functions, Welfare Maximization, Individualistic Social Welfare Functions, Fair Allocations, Envy and Equity. (b) The Coase Theorem, Production Externalities, the Tragedy of the Commons. (b) Market Failure, Private provision of the public good, Free Rider Problem, Voting.

#### **Textbooks:**

- 1. Hal R. Varian, 'Intermediate Microeconomics: A Modern Approach', 8<sup>th</sup> Edition, W.W. Norton & Company, 2010.
- 2. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.

#### **References:**

- 6. Ross, Sheldon A first course in probability / Sheldon Ross. 8th ed.p. cm. Pearson Education, Inc, 2010.
- 7. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata-McGraw Hill (India), 2009.
- 8. Pindyck, Robert and Rubinfeld, Daniel. 'Microeconomics', 9<sup>th</sup> edition, Pearson, 2018.
- 9. Case, Fair and Oster, *Principles of Economics*, Prentice Hall, 11<sup>th</sup> edition, 2014.
- 10. Lipsey, R.G. and Chrystal, K.A., *Economics*, Oxford University Press, 13th edition.
- 11. Mankiw, N.G. Principles of Economics, Cengage Learning. 7<sup>th</sup> edition, 2015.
- 12. Andreu Mas-Colell, Michael D. Whinston and Jerry, R. Green, 'Microeconomic Theory', Oxford University Press, 2012.
- 13. Krugman, Paul and Wells, Robin, 'Microeconomics', 3<sup>rd</sup> edition, Worth Publishers, 2013.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
<b>B.Sc. (Hons) Economics Programme</b>			Course Instructor:		
Semester: IV					
Course Code	: I	EC-254			
Core/ Optional	: (	Core	Title of the Course:		
No. of Credits	: 6	5.00	Introductory Econometrics		
Lectures	: 5	55 Hours	Introductory Econometries		
Tutorials	: 2	20 Hours			
Seminars/Projects	: 1	5 Hours			

## **Objectives**

- To provides a comprehensive introduction to basic econometric concepts and techniques.
- To explain the statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models.
- > It also covers the consequences of and tests for misspecification of regression models.

## **Course Outline**

#### **Unit I:Nature and Scope of Econometrics**

Introduction and history of econometrics; Need for economic modeling; Idea of an economic model.

### **Unit II: Statistical Concepts**

Normal distribution; chi-sq, t- and F-distributions; estimation of parameters; properties of estimators; testing of hypotheses: defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests for comparing parameters from two samples.

#### **Unit III: Simple Linear Regression Model:**

Two Variable Case Estimation of model by method of ordinary least squares; properties of estimators; goodness of fit; tests of hypotheses; scaling and units of measurement; confidence intervals; Gauss-Markov theorem; forecasting.

#### **Unit IV: Multiple Linear Regression Model**

Estimation of parameters; properties of OLS estimators; goodness of fit -  $R^2$  and adjusted  $R^2$ ; partial regression coefficients; testing hypotheses – individual and joint; functional forms of regression models; qualitative (dummy) independent variables.

**Unit V: Violations of Classical Assumptions: Consequences, Detection and Remedies** Multicollinearity; heteroscedasticity; serial correlation.

### **Unit VI: Specification Analysis:**

Omission of a relevant variable; inclusion of irrelevant variable; tests of specification errors.

## **Text books:**

- 1. DamodarGujarathi, Basic Econometrics(5th Edition), Tata McGraw-Hills.
- 2. L Woolridge, Introductory Econometrics: A Modern Approach(5<sup>th</sup> Edition), Cengage Learning.

- J Johnston, Econometric Methods(4<sup>th</sup> Edition),McGraw-Hill Education.
   WH Greene,Econometric Analysis(8<sup>th</sup> Edition),Pearson Education.
- 3. Jay L. Devore, Probability and Statistics for Engineers(9th Edition), Cengage Learning.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
B.Sc. (Hons) Econe	omics Programme	Course Instructor:			
Semester: IV					
Course Code :	EC-255				
Core/ Optional:	SEC	Title of the Course:			
No. of Credits:	4.00	IT-Software Applications and R			
Lectures:	24 Hours	programming			
Tutorials:	18 Hours				
Seminars/Projects:	18 Hours				

#### **Objectives**

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- To make students proficient in computer applications and statistical computing methods.
- > To make students to apply application in economics modeling and able to do forecasting

#### **Course Outline**

#### **Unit I: Basic operations of Excel**

Spreadsheet basic operations: basic excel formulae; importing and exporting data; data cleaning; data visualization; data formatting and wrangling; excel functions; using external add-ins.

#### Unit II: Data Analysis Using Excel

Data analysis using Excel Data analysis tool pack: Random Number Generation, Calculating basic statistics; hypothesis testing; correlation and covariance analysis; regression modeling; ANOVA

#### **Unit III: Introduction to R**

Introduction to R: Primitive Object Types; Vectors; List; Matrices; Arrays; Factors; Data frames.Working with Data: Data preparation; basic data analysis; summary statistics; correlation and covariance; probability distributions.

#### Unit IV: Loops in R

Loops in R: for, while and if-else loops in R. Functions in R: functions vs. loops; application of R functions in hypothesis testing. Data analytics in R: Accessing external databases from R console; data extraction, visualization and cleaning; Introduction to Monte-Carlo simulation and Bootstrapping in R.

#### **Unit V: Econometric Modeling in R**

Econometric modeling in R: Constructing an OLS model. Pre-estimation and post estimation diagnostic testing, Forecasting. Timeseries in R: decomposing trends, seasonality and cyclical behavior. Interpolation methods.

## **Textbooks:**

- Data analytics with R, Bharti Motwani(1<sup>st</sup> Edition), Wiley,2019
   The R Book, Michael J Crawley(2<sup>nd</sup> Edition), Wiley, 2018

- 1. An Introduction to Statistical Learning: with Applications in R (Springer Texts in Statistics), Gareth James et.al.(7<sup>th</sup> Edition), Springer, 2017
- 2. Econometrics in R, Grant V Farnsworth, Ebook, https://cran.r-project.org/doc/contrib/Farnsworth-EconometricsInR.pdf



## CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU

## Time Table B.Sc., (Hons.) Economics: IV Semester (W.e.f., 2020)

Day	9:00 AM -11:00 AM	11:00 AM- 1:00 PM		2:00PM-4:00PM
Monday	Micro II	IE		Macro –II
Tuesday	Macro –II	SEC		Micro- II
Wednesday	Macro-II	GE	B	IE
Thursday	Micro-II	SEC	E	GE
Friday	GE	IE	K	CS
Saturday	CS	CS		

Micro II: Intermediate Microeconomics-II---Macro II: Intermediate Macroeconomics-II---GE: Economies of Information---SEC: IT- Software and R Programming: IE: Introductory Econometrics ---CS: Class Seminar

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CENTRAL UNIVERSITY OF ANDHRA PRADESH				
B.Sc. (Hons) Economics Programme			Course Instructor:	
Semester: V				
Course Code	:	EC-301		
Core/ Optional	:	Core	Title of the Course:	
No. of Credits	:	6.00	Applied Econometrics	
Lectures	:	55 Hours		
Tutorials	:	20 Hours		
Seminars/Projects	:	15 Hours		

#### **Course Objectives**

- To provide a foundation in applied econometric analysis and develop skills required for empirical research in economics.
- To make practice knowledge of regression models, dynamic econometric models, advanced methods in regression analysis and panel data models.
- > To emphasis is on application of methods, this course requires understanding of econometric software and computing skills.

## **Course Outline**

#### **Unit I: Stages in Empirical Econometric Research**

Introduction to Empirical research and fundamental of research with econometric tools.

#### **Unit II: Regression Diagnostics and Specification**

Misspecification; functional forms; model selection.

#### Unit III: Advanced Topics in Regression Analysis

Selected Topics: Dynamic Econometric Models: distributed lag models; autoregressive models; instrumental variable estimation; simultaneous equation models.

#### **Unit IV: Panel Data Models**

Methods of estimation; fixed effects model; random effects model.

## Unit V: Introduction to Econometric Software Package

GRETL; E-VIEWS; STATA (any one).

## **Textbooks:**

- 1. Jeffrey M. Wooldridge, *Econometrics*, CENGAGE learning, India Edition.
- 2. Damodar Gujarathi, Basic Econometrics(5th Edition), Tata McGraw-Hills.

- 1. DimitriosAsteriou and Stephen Hall, *Applied Econometrics: A Modern Approach*, Palgrave Macmillan.
- 2. Damodar Gujarati, Econometrics by Example, Palgrave Macmillan.

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
B.Sc. (Hons) Economics Programme			Course Instructor:	
Semester: V				
Course Code	:	EC-302		
Core/ Optional	:	Core	Title of the Course:	
No. of Credits	:	6.00	<b>Development Economics-I</b>	
Lectures	:	55 Hours	•	
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

#### CourseObjectives

Development Economics is a core course for B.Sc. (Hons) Economics. It has divided into two parts; the first one Development Economics-I and second Development Economics-II. The first part is included in Semester-V. The main objective of the course is;

- To Introduce the development economics, and then proceeds to study comparative economic development.
- To explain the theories of economic development, models of economics growth and technical progress.
- > To discuss the poverty and inequality associated issues.

#### **Course Outline**

#### **Unit I: Introduction to Development Economics**

Concepts and Approaches of Development Economics; Economic Growth vs. Economic Development; Measurement of Economic Development; Human Development Indices; Obstacles to Economic Development;Sustainable Development.

#### **Unit II: Comparative Economic Development**

Defining the Developing World; Basic Indicators of Development: Real Income, Health, and Education; Universal Measures of Living Levels and Capabilities; Characteristics of the Developing World.

#### **Unit III: Theories of Economic Development**

Adam Smith, Ricardo, Marx, Schumpeter, Rostow, Balanced & Unbalanced Growth, Big Push Approach.

#### Unit IV: Models of Economic Growth and Technical Progress

Harrod-Domar, Solow, Robinson, Kaldor Growth models, and Disembodied & embodied and endogenous growth models.

#### **Unit V:Poverty and Inequality**

Definitions and Measures of Poverty; Mechanisms that generate poverty traps and path dependence of growth processes; Connections between inequality and development; Million Development Goals.

#### **Textbooks:**

- 1. Debraj Ray, Development Economics, Oxford University Press, 2009.
- 2. Michael P. Todaro and Stephen C. Smith, Economic Development, Pearson Publications, 2015.
- 3. Jhingan M. L., The Economics of Development and Planning, Vrinda Publications (P) Ltd.2012.

- 1. ParthaDasgupta, Economics, A Very Short Introduction, Oxford University Press, 2007.
- 2. Abhijit Banerjee, Roland Benabou and DilipMookerjee, Understanding Poverty, Oxford University Press, 2006.
- 3. Kaushik Basu, The Oxford Companion to Economics in India, OUP, 2007.
- 4. Amartya Sen, Development as Freedom, OUP, 2000.
- 5. Daron Acemoglu and James Robinson, Economic Origins of Dictatorship and Democracy, Cambridge University Press, 2006.
- 6. Robert Putnam, Making Democracy Work: Civic Traditions in Modern Italy, Princeton University Press, 1994
- 7. SubrataGhatak, Introduction to Development Economics, Routledge, London and New York, 2005

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
B.Sc. (Hons) Economics Programme			Course Instructor:		
Semester: V					
Course Code	:	EC-303			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Indian Economy-I		
Lectures	:	55 Hours			
Tutorials	:	15 Hours			
Seminars/Projects	:	20 Hours			

## Objective

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points.

#### **Course Outline**

#### **Unit I: Economic Development since Independence**

Major features of the economy at independence; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment.

#### **Unit II: Population and Human Development**

Demographic trends and issues; education; health and malnutrition.

#### **Unit III: Growth and Distribution**

Trends and policies in poverty; inequality and unemployment.

#### **Unit IV: International Comparisons**

Comparisons of the international economies.

#### **Textbooks:**

- 1. Ramesh Singh, Indian Economy for Civil Services, Universities and Other Examinations (11th edition), Mc Graw Hill Education (India) Private Limited, 2019.
- 2. V.K. Puri(Author), S.K. Misra, Indian Economy, 36Ed, Himalaya Publishing House, 2018.
- 3. Uma Kapila, Indian Economy Performance and Policies, 20th Edition, Academy Foundation, 2019.

- 1. Kaushik Basu and A. Maertens, eds, 2013, *The New Oxford Companion to Economics*, Oxford University Press.
- 2. Jean Dreze and Amartya Sen, Jean Dreze and Amartya Sen, 2013. An UncertainGlory: India and its Contradictions, Princeton University Press.
- 3. PulapreBalakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.
- 4. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.
- 5. S.L. Shetty, 2007, —India's Savings Performance since the Advent of Planning, inK.L. Krishna and A. Vaidyanathan, editors, *Institutions and Markets in India's Development*.
- 6. Himanshu, 2010, Towards New Poverty Lines for India, *Economic and Political Weekly*, January.
- 7. Jean Dreze and Angus Deaton, 2009, Food and Nutrition in India: Facts and Intepretations, *Economic and Political Weekly*, February.
- 8. Himanshu. 2011, —Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.
- 9. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, *Economic and Political Weekly*, September.
- 10. Geeta G. Kingdon, 2007, —The Progress of School Education in India, *Oxford Review of Economic Policy*.
- 11. J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India, *International Journal of Educational Development*.
- T. Dyson, 2008, —India's Demographic Transition and its Consequences for Development in Uma Kapila, editor, *Indian Economy Since Independence*, 19<sup>th</sup> edition, Academic Foundation.
- 13. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
- 14. K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India *Economic and Political Weekly*, June.
- 15. ReetikaKhera, 2011, —India's Public Distribution System: Utilisation and Impact *Journal of Development Studies*.
- Aniruddha Krishna and DevendraBajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic andPolitical Weekly*, September.

CENTRAL UNIVERSITY OF ANDHRA PRADESH					
<b>B.Sc.</b> (Hons) Economics Programme			Course Instructor:		
Semester: V					
Course Code	:	EC-304			
Core/ Optional	:	Core	Title of the Course:		
No. of Credits	:	6.00	Money and Financial Economics		
Lectures	:	55 Hours			
Tutorials	:	20 Hours			
Seminars/Projects	:	15 Hours			

#### **Course Objectives**

- To exposes students to the theory and functioning of the monetary and financial sectors of the economy.
- > To highlights the organization, structure and role of financial markets and institutions.
- > To discusses interest rates, monetary management and instruments of monetary control.
- To discusses financial and banking sector reforms and monetary policy with special reference to India are also covered.

### **Course Outline**

#### **Unit I: Money**

Concept, functions, measurement; theories of money supply determination.

#### Unit II: Money Financial Institutions, Markets, Instruments and Financial Innovations

(a) Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises. (b) b. Money and capital markets: organization, structure and reforms in India; role offinancial derivatives and other innovations.

#### **Unit III: Interest Rates**

Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.

#### **Unit IV: Banking System**

(a) Balance sheet and portfolio management. (b) Indian banking system: Changing role and structure; banking sector reforms.

#### **Unit V: Central Banking and Monetary Policy**

Functions, balance sheet; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.

#### **Textbooks:**

- 1. F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions*, Pearson Education, 6th edition, 2009.
- **2.** L. M. Bhole and J. Mahukud, *Financial Institutions and Markets*, Tata McGraw Hill, 5th edition, 2011
- 3. M. R. Baye and D. W. Jansen, Money, Banking and Financial Markets, AITBS, 1996

- 1. F. J. Fabozzi, F. Modigliani, F. J. Jones, M. G. Ferri, *Foundations of Financial Markets and Institutions*, Pearson Education, 3rd edition, 2009.
- 2. Rakesh Mohan, *Growth with Financial Stability- Central Banking in an Emerging Market*, Oxford University Press, 2011.
- 3. M. Y. Khan, Indian Financial System, Tata McGraw Hill, 7th edition, 2011.
- 4. N. Jadhav, *Monetary Policy, Financial Stability and Central Banking in India,* Macmillan, 2006.
- 5. R.B.I. Report of the Working Group: Money Supply Analytics and Methodology of Compilation, 1998.
- 6. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).



## CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU

## Tentative Time Table B.Sc., (Hons.) Economics: V Semester (W.e.f. 20<sup>th</sup>Aug, 2020)

Day	9:00 AM -11:00 AM	11:00 AM- 1:00 PM		2:00PM-4:00PM
Monday	IE	AE		DE
Tuesday	IE	MFM		DE
Wednesday	AE IE		B R	MFM
Thursday	DE	MFM	E A	CS
Friday	CS AE K		K	CS
Saturday	CS	CS		CS

AE: Applied Econometrics---DE: Development Economics ---MFM: Money and Financial Markets ---IE: Indian Economy-I ---CS: Class Seminar

Dean

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc.</b> (Hons) Economics Programme			Course Instructor:	
Semester: VI				
Course Code	:	EC-351		
Core/ Optional	:	Core	Title of the Course:	
No. of Credits	:	6.00	<b>Development Economics-II</b>	
Lectures	:	55 Hours		
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

## Objectives

Development Economics is a core course for B.Sc. (Hons) Economics. It has divided into two parts; the first one Development Economics-I and second Development Economics-II. The first part is included in Semester-VI. The main objective of the course is;

- > To Introduce the development economics, and then proceeds to study comparative economic development.
- > To explain the theories of economic development, models of economics growth and technical progress.
- > To discuss the poverty and inequality associated issues.

#### **Course Outline**

## **Unit I: Demography and Development**

Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; connections between income, mortality, fertility choices and human capital accumulation; migration.

#### **Unit II: Health and Education**

Role of Health and Education in Human Development; Health Sector in India: An Overview Health outcomes; health systems; health financing.Education Sector in India: An Overview Literacy rates, school participation, school quality measures.

#### **Unit III: Environment and Sustainable Development**

Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change.

#### **Unit IV:Globalization**

Globalization in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalized world.

#### Unit V: Political Institutions and the Functioning of the State

The determinants of democracy; alternative institutional trajectories and their relationship with economic performance; within-country differences in the functioning of state institutions; state ownership and regulation; government failures and corruption.

#### **Textbooks:**

- 4. Debraj Ray, Development Economics, Oxford University Press, 2009.
- 5. Michael P. Todaro and Stephen C. Smith, Economic Development, Pearson Publications, 2015.
- 6. Jhingan M. L., The Economics of Development and Planning, Vrinda Publications (P) Ltd.2012.
- 7. Kaushik Basu, Analytical Development Economics, OUP

- 8. ParthaDasgupta, Economics, A Very Short Introduction, Oxford University Press, 2007.
- 9. Abhijit Banerjee, Roland Benabou and DilipMookerjee, Understanding Poverty, Oxford University Press, 2006.
- 10. Kaushik Basu, The Oxford Companion to Economics in India, OUP, 2007.
- 11. Amartya Sen, Development as Freedom, OUP, 2000.
- 12. Daron Acemoglu and James Robinson, Economic Origins of Dictatorship and Democracy, Cambridge University Press, 2006.
- 13. Robert Putnam, Making Democracy Work: Civic Traditions in Modern Italy, Princeton University Press, 1994
- 14. SubrataGhatak, Introduction to Development Economics, Routledge, London and New York, 2005
- 15. Michael D. Bordo, Alan M. Taylor and Jeffrey G. Williamson (ed.), Globalization in Historical Perspective, University of Chicago Press, 2003.
- 16. Dani Rodrik, The Globalization Paradox: Why Global Markets, States and DemocracyCan't Coexist, Oxford University Press, 2011.
- 17. Elinor Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action, Cambridge University Press, 1990.
- 18. RaghuramRajan, Fault Lines: How Hidden Fractures Still Threaten the World Economy, 2010.
- 19. William, Jack, Principles of Health Economics for Developing Countries, World Bank Institute Development Studies, 1999.
- 20. World Development Report, Investing in Health, The World Bank, 1993.

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc.</b> (Hons) Economics Programme			Course Instructor:	
Semester: VI				
Course Code	:	EC-352		
Core/ Optional	:	Core	Title of the Course:	
No. of Credits	:	6.00	Indian Economy-II	
Lectures	:	55 Hours		
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

## **Objectives**

- To examine sector-specific polices and their impact in shaping trends in key economic indicators in India.
- > To highlights major policy debates and evaluates the Indian empirical evidence.
- Focuses on the rapid changes taking place in the country, the reading list will have to be updated annually.

#### **Course Outline**

#### **Unit I: Macroeconomic Policies and Their Impact**

Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation.

## Unit II: Policies and Performance in Agriculture

Growth; productivity; agrarian structure and technology; capital formation; trade; pricing and procurement.

## Unit III: Policies and Performance in Industry

Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment.

#### **Unit IV: Trends and Performance in Services**

Trends and the performance in the service sector will be discussed.

#### **Unit V: India Economy Post Financial Crisis**

Discuss in detail Global Financial Crisis

#### **Textbooks:**

- 5. Ramesh Singh, Indian Economy for Civil Services, Universities and Other Examinations (11th edition), Mc Graw Hill Education (India) Private Limited, 2019.
- 6. V.K. Puri(Author), S.K. Misra, Indian Economy, 36Ed, Himalaya Publishing House, 2018.
- 7. Uma Kapila, Indian Economy Performance and Policies, 20th Edition, Academy Foundation, 2019.

- 1. Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8, in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
- 2. Rakesh Mohan, 2010, —India's Financial Sector and Monetary Policy Reforms, In Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performances and Challenges: Development and Participation, Oxford University Press.
- 3. PulapreBalakrishnan, Ramesh Golait and Pankaj Kumar, 2008, —AgriculturalGrowth in India Since 1991, *RBI DEAP Study no. 27*.
- 4. B.N. Goldar and S.C. Aggarwal, 2005, —Trade Liberalisation and Price-CostMargin in Indian Industries, The Developing Economics, September.
- 5. P. Goldberg, A. Khandelwal, N. Pavcnik and P. Topalova, 2009, —TradeLiberalisation and New Imported Inputs, American Economic Review, Papers and Proceedings, May.
- 6. Kunal Sen, 2010, —Trade, Foreign Direct Investment and IndustrialTransformation in India, ïnPremachandraAthukorala, editor, The Rise of Asia, Routledge.
- A. Ahsan, C. Pages and T. Roy, 2008, —Legislation, Enforcement andAdjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and S. Sarkar, editors, Globalization, Labour Markets and Inequality in India, Routledge.
- 8. Dipak Mazumdar and Sandeep Sarkar, 2009, —The Employment Problem in Indiaand the Phenomenon of the \_Missing Middlel, *Indian Journal of LabourEconomics*.
- 9. J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector inIndian Manufacturing, Economic and Political Weekly, April.
- 10. Ramesh Chand, 2010, —Understanding the Nature and Causes of Food Inflation, Economic and Political Weekly, February.
- 11. BishwanathGoldar, 2011, —Organised Manufacturing Employment: ContinuingtheDebatell, Economic and Political Weekly, April.
- 12. Kaushik Basu and A. Maertens, eds, 2013, *The New Oxford Companion toEconomics in India*, Oxford University Press.

CENTRAL UNIVERSITY OF ANDHRA PRADESH				
<b>B.Sc. (Hons) Economics Programme</b>			Course Instructor:	
Semester: VI				
Course Code	:	EC-353		
Core/ Optional	:	Core	Title of the Course:	
No. of Credits	:	6.00	International Economics	
Lectures	:	55 Hours		
Tutorials	:	15 Hours		
Seminars/Projects	:	20 Hours		

## Objectives

- A systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of tradepolicy.
- > It then builds on the models of open economy macroeconomics

## **Course Outline**

#### **Unit I: Introduction**

What is international economics about? An overview of world trade.

#### **Unit II: Theories of International Trade**

The Ricardian, specific factors, and Heckscher-Ohlin models; new trade theories; the international location of production; firms in the global economy — outsourcing and multinational enterprises.

## **Unit III: Trade Policy**

Instruments of trade policy; political economy of trade policy; controversies in trade policy.

## **Unit IV:International Macroeconomic Policy**

Fixed versus flexible exchange rates; international monetary systems;

## **Unit V:Globalization**

Globalization and financial crises.

## **Textbooks:**

- 1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, *International Economics: Theory andPolicy*, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
- 2. Dominick Salvatore, *International Economics: Trade and Finance*, John Wile International Student Edition, 10th edition, 2011.



## CENTRAL UNIVERSITY OF ANDHRA PRADESH ANANTHAPURAMU

## Tentative Time Table B.Sc., (Hons.) Economics: VI Semester (W.e.f., 2020)

Day	9:00 AM -11:00 AM	11:00 AM- 1:00 PM		2:00PM-4:00PM
Monday	IE-II	INT.E		DE-II
Tuesday	IE-II	DE-II		
Wednesday	IE-II	INT.E	B	CS
Thursday	DE-II	CS	E	CS
Friday	CS	CS	K	CS
Saturday	CS	CS		CS

IE-II: Indian Economy-II DE-II: Development Economics-II INT.E: International Economics Dissertation

Dean