GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT (GITAM)
(Deemed to be University)
VISAKHAPATNAM * HYDERABAD * BENGALURU

Accredited by NAAC with A^+ Grade

REGULATIONS AND SYLLABUS

OF

M.A. Economics

(w.e.f. 2020-21 admitted batch)

2.0 REGULATIONS

2.1 ADMISSION

Admission into Two Year Full Time M.A. in Economics program of GITAM (Deemed to be University) is governed by GITAM (Deemed to be University) admission regulations.

2.2 ELIGIBILITY AND ADMISSION CRITERIA

Any Bachelor's Degree with economics or a combination with economics as at least one core area (or) B.B.A (or) B.Com (or) B.Sc Mathematics (or) B.Sc Statistics with minimum 55% marks.

Following are the criteria of selection for admission into M.A. in Economics program:

The candidates are selected on the basis of their bachelor's degree marks and a personal interview, which focuses on their area of interest, communication skills and a passion towards understanding people and behavior.

The final selection of candidates for admission depends upon i) the graduation marks and a personal interview as mentioned above and ii) the rules of admission including the rule of reservation as stipulated by the University from time to time.

2.3 CHOICE BASED CREDIT SYSTEM

Choice Based Credit System (CBCS) is introduced with effect from the admitted Batch of 2020-21 based on UGC guidelines in order to promote:

- Student Centered Learning
- Cafeteria approach
- Students to learn courses of their choice
- Students to learn at their own pace
- Inter-disciplinary learning

Learning outcomes are specified leading to what a student should be able to do at the end of the program.

2.4 MEDIUM OF INSTRUCTION

The medium of instruction (including examinations and project reports) shall be English. The method of instruction shall comprise of classroom lectures, self-learning through Coursera, guest lectures, demonstrations, presentations, role play, group discussions, seminars, class tests, case analysis, situational analysis, field assignments etc.

2.5 **REGISTRATION**

Every student has to register himself/herself for each semester individually at the time specified by the Institute / University.

2.6 ATTENDANCE REQUIREMENTS

A student whose attendance is less than 75% in all the courses put together in any semester, will not be permitted to attend the semester end –examination and he/she has to repeat the semester along with his/her juniors.

However, the Vice Chancellor on the recommendation of the Principal / Director of the Institute may condone the shortage of attendance to the students whose attendance is between 66% and 74% on genuine medical grounds and on payment of prescribed fee.

2.7 EVALUATION: CONTINUOUS ASSESSMENT AND EXAMINATIONS

The assessment of the student's performance in a Theory course shall be based on two components: Continuous Evaluation (40 marks) and Semester-end examination (60 marks).

A student has to secure an aggregate of 40% in the course in the two components put together to be declared to have passed the course, subject to the condition that the candidate must have secured a minimum of 24 marks (i.e. 40%) in the theory component at the semester-end examination.

Practical/ Project Work/ Industrial Training/ Viva voce/ Seminar etc. course are completely assessed under Continuous Evaluation for a maximum of 50/100 marks, and a student has to obtain a minimum of 40% to secure Pass Grade. Details of Assessment Procedure are furnished below in Table-2.

In addition to the electives chosen in each semester, the student has to choose two open elective courses of their choice/interest from online Courses. These could be from Massive Open Online Courses (MOOC), Coursera, swayam or edX. These options will be made available during the two years study period i.e. at any semester during first year or second year course of study. Each course has 2 credits. Credits will be credited /shown in IV semester only. The courses will be evaluated by the online source and a certificate / proof of passing the course should be made available by the student to the program coordinator.

Table-1: Assessment Procedure

Sl. No.	Component of Assessment	Marks Allotted	Type of Assessment	Scheme of Evaluation
1.	Theory	40	Continuous Evaluation	The method of Continuous Evaluation Assessment is decided by the course instructor according to the course structure.
		60	Semester end examination	60 marks for semester end examination
	Total	100		
2.	Dissertation (IV Semester)	100	Continuous evaluation	i. 50 Marks for periodic evaluation on originality, innovation, sincerity and progress of the work assessed by the Project Supervisor. ii. 50 Marks for final report presentation and viva voce defending the project before a panel of examiners, out of which 20 marks will be for the record.
3.	Comprehensive viva voce (IV Semester)	50	Continuous evaluation	Fifty (50) marks for Comprehensive viva-voce at the end of IV Semester, covering selected topics across four semesters. The course content for Viva Voce Exam shall be announced at the beginning of the III Semester

2.8 EXAMINATION –DURATION AND PATTERN

The duration of each examination shall be three hours. In case of courses having practical, the duration of the theory and practical exam shall be for two hours only.

Examination Pattern

The following shall be the format of the question papers of different theory courses with exception of courses with practical component.

S. No.	Pattern	Marks
1.	**Section A :** Five one page answer questions	5 X 4 = 20 Marks
	(Five out of Eight to be answered, at least one question from each unit)	
2.	**Section B :** Five short Essay type questions (2 questions from each Unit, with internal choice) (ie.either or choice Questions from each unit**)**	5 X 8 = 40 Marks
	Total	**60 Marks**

2.9 VIVA-VOCE:

The Viva – Voce shall be arranged at the end of fourth semester.

The Viva- Voce at the end of IV Semester would be a comprehensive compulsory examination based on the entire course and the Board would consist of:

Programme Coordinator : Chairman/ Internal examiner
One Senior Faculty from the Institute : Member

2.10 DISSERTATION

The candidate shall submit a dissertation in the IV semester which will be evaluated for 100 marks/ 4 credits. The research project report shall be accompanied by a certificate of original work, duly certified by the guide/ supervisor of the dissertation.

Dissertation Evaluation: **100 Marks**

The Viva-Voce for the dissertation at the end of **IV Semester** consists of

Program Coordinator: Chairman
One Senior Faculty from the Department: Internal Examiner
Project Guide/Faculty from the Institute: Member

2.11 RETOTALLING & REAPPEARANCE

Retotaling of the theory answer script of the semester- end examination is permitted on a request made by the student by paying the prescribed fee within one week after the announcement of the results.

A Student who has secured 'F' Grade in any theory course of any semester will have to reappear for the semester end examination of that course along with his/her juniors.

A student who has secured 'F' Grade in Project work shall have to improve his report and reappear for viva – voce of project work at the time of special examination.

There is **no Reevaluation** for MA Economics course, as there exists a double evaluation.

2.12 SUPPLEMENTARY EXAMINATIONS & SPECIAL EXAMINATIONS

The odd semester supplementary examinations will be conducted on daily basis after conducting regular even semester examinations in April/May.

The even semester supplementary examinations will be conducted on daily basis after conducting regular odd semester examinations during Oct/Nov.

A student who has completed his/her period of study and still has "F" grade in final semester courses is eligible to appear for Special Examination normally held during summer vacation.

A student who has completed the stipulated period of study for the MA program and has a failure grade ('F') in not more than 3 subjects, in the III and IV semesters, may be permitted to appear for the special examination.

2.13 REPEAT CONTINUOUS EVALUATION

The students can attend Repeat Continuous Evaluation as per the following rules and regulations:

1. Candidates having less than 40% of the maximum marks in Continuous Evaluation component of a Theory/Practical course of any Semester are eligible to appear for RCE.

2. A student who is pursuing the program can register a maximum of 6 courses against this Notification.

3. There is no cap on courses for the students who have completed the course. They can appear for RCE in any number of course(s) of their choice

4. Appearance at RCE is through a program of **Special Instruction classes** @20 hrs. per course, which commence in the summer vacation .

5. The students going on internship during summer vacation need to take prior approval for appearing for RCE in the beginning of III Semester.

6. Candidates have to put in atleast **90% attendance** during Special Instruction. Biometric attendance and signing of attendance sheets for each course, during special instruction classes is mandatory.

7. Candidates have to appear for two examinations during the Special Instruction- one in the middle and the other at the end of the Special Instruction classes.

8. The candidate can appear for RCE of a given course (Theory/Practical) only once within the duration of the program.

9. **Fee for RCE is Rs. 6,500/ per course**.

2.14 BETTERMENT OF GRADES

A student who has secured only a Pass or Second class and desires to improve his/her grades can appear for Betterment Examinations only in Theory courses of any Semester of his/her choice, conducted in Summer Vacation along with the Special Examinations. Betterment of Grades is permitted 'only once' immediately after completion of the program of study.

2.15 GRADING SYSTEM

Based on the students' performance during a given semester, a final letter grade will be awarded at the end of the semester in each course. The letter grades and the corresponding grade points are as given in Table-**3** below.

Table-2: Grades & Grade Points

Sl.No.	Grade	Grade Points	Absolute Marks
1	O (outstanding)	10	90 and above
2	A+ (Excellent)	9	80 to 89
3	A (Very Good)	8	70 to 79
4	B+ (Good)	7	60 to 69
5	B (Above Average)	6	50 to 59
6	C (Average)	5	45 to 49
7	P (Pass)	4	40 to 44
8	F (Fail)	0	Less than 40
9	Ab(Absent)	0	-

A student who earns a minimum of 4 grade points (P grade) in a course is declared to have successfully completed the course, and is deemed to have earned the credits assigned to that course, subject to securing a GPA of 5 for a Pass in the semester.

This is applicable to both theory and practical papers. In the case of Project Report (dissertation) and Viva-Voce also, the minimum pass percentage shall be 40%.

2.16 GRADE POINT AVERAGE

A Grade Point Average (GPA) for the semester will be calculated according to the formula:

$$GPA = \frac{\Sigma\,[C.G]}{\Sigma\,C}$$

Where,
C = number of credits for the course,
G = grade points obtained by the student in the course.

To arrive at Cumulative Grade Point Average (CGPA), a similar formula is used considering the student's performance in all the courses taken in all the semesters completed up to the particular point of time.

The requirement of CGPA for a student to be declared to have passed on the successful completion of the MA program and for the declaration of the class is as shown in Table-4:

Table-3: CGPA required for award of class

Distinction	**≥ 8.0***
First Class	**≥ 6.5**
Second Class	**≥ 5.5**
Pass	**≥ 5.0**

*In addition to the required CGPA of 8.0, the student must have necessarily passed all the courses of every semester in the first attempt.

The student who successfully completes the entire program in the first attempt shall be eligible for the awards and prizes. The results shall be announced 30 days from the time of the last examination.

2.17 INTERACTION WITH INDUSTRY

In order to make the MA course more relevant to the student's needs, close interaction with other faculty members of other Institutes shall be arranged through the following means:

2.17.1 Guest and Visiting Faculty

Senior professors and other professionals from related fields shall be invited periodically to serve as guest and visiting faculty. **At least two guest lectures** by professionals shall be arranged in each semester.

2.17.2 Educational Visits

Students shall make not less than **one educational visit** in each semester. A brief account of these visits shall be prepared by the students after the visit. These visits would be focused on practical exposure to relevant subjects in each semester.

2.17.3 Internship / training program

Candidates shall undergo practical training in an organization for a minimum period of **10 days**. The student has to undergo practical training in all the functional areas of the organization and have hands on experience in the relevant clinical field. They would submit a report on the training program and their experiences. This shall be accompanied by a certificate of practical training obtained from the concerned organization.

2.18 RULES FOR PAPER SETTING AND EVALUATION

2.18.1 With regard to the conduct of the end semester examination in any of the practical course of the program, the Head of the Department/Course Coordinator concerned shall appoint one internal examiner (with relevant experience in the subject) from the department, not connected with the conduct of regular laboratory work, in addition to the teacher who handled the laboratory work during the semester.

2.18.2 In respect of all the theory examinations, the paper setting shall be done by an external paper-setter, having a minimum of three years of teaching experience. The panel of paper setters for each course is to be prepared by the Board of Studies of the department concerned and approved by the Academic Council. The paper-setters are to be appointed by the Vice-Chancellor on the basis of recommendation of the Director of Evaluation/ Controller of Examinations

2.18.3 The theory papers of the end semester examinations will be evaluated by two examiners. The examiners may be internal/external examiners. The average of the two evaluations shall be considered for the award of grade in that course.

2.18.4 If the difference of marks awarded by the two examiners of theory course exceeds 20 percent, the paper will have to be referred to third examiner for evaluation. The average of the two nearest evaluations of these shall be considered for the award of the grade in that course.

2.18.5 The panel of examiners of evaluation for each course is to be prepared by the Board of Studies of the department concerned and approved by the Academic Council.

2.18.6 The examiner for evaluation shall possess postgraduate qualifications and a minimum of three years experience.

2.18.7 The appointment of examiners for evaluation of theory papers will be done by the by the Vice-Chancellor on the basis of recommendations of the Director of Evaluation/ Controller of Examinations from a panel of examiners approved by the Academic Council.

2.19 ELIGIBILITY FOR AWARD OF THE MA DEGREE

2.19.1 Duration of the program:

A student is ordinarily expected to complete the MA program in four semesters of two years. However, a student may complete the program in not more than four years including the study period. However, the above regulation may be relaxed by the Vice Chancellor in individual cases for cogent and sufficient reasons.

2.19.2 Research Project report shall be submitted on or before the last day of the course.

2.19.3 A student shall be eligible for award of the MA degree if he/she fulfills the following conditions:

a) Registered and successfully completed all the courses and projects.
b) Successfully acquired the minimum required credits as specified in the curriculum within the stipulated time.
c) Has no dues to the Institute, hostels, Libraries, etc, and
d) No disciplinary action is pending against him / her.

2.20 The degree shall be awarded after approval by the Academic Council.

3.0 PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

GITAM (Deemed to be University) offers a two year full time M.A in Economics. This program aims at providing students with a blend of theoretical knowledge in economics as well as a practical orientation in the applied aspects of economics.

This program helps students in developing an integrated view of the applied aspects of economics through its semester system, in which the courses are handled in depth and the students are evaluated continuously on various dimensions. The curriculum lays the foundation for a conceptual and analytical understanding of the applied aspects of economics.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

PEO-1: To build competence among students from a holistic perspective by providing necessary theoretical background in economics.

PEO-2: To acquaint students with the current economic issues at national and international level and to apply the theroetical knowledge to provide solutions

PEO-3: To provide research orientation to the students in the form of project work / dissertation in which they will collect real time data and apply the econometric techniques to do analysis with software packages

PEO-4: To prepare students to meet the requirements of employment across various industries such as banking, services etc.

4.0 PROGRAM OUTCOMES (POs) AND PROGRAM SPECIFIC OUTCOMES (PSOs)

PROGRAM OUTCOMES (POs):

PO-1: Show strong conceptual knowledge in economic theories

PO-2: Apply the theoretical knowledge to the existing economic problems

PO-3: Collecting real time data using sound research and sampling designs from both primary and secondary sources

PO-4: Demonstrate knowledge of technical skills to do data analysis and interpretation

PO-5: Examine the present economic problems persisting at national and international level to offer solutions

PO-6: Critically evaluate the government economic policies to suggest optimal solutions with convincing arguments

PO-7: Examine the role of economic institutions and organisations at national and international level regarding the distribution of resources and revenues

PO-8: Develop the skills to participate in academic events such as conferences/work shops

PO-9: Portray the decision making skills for the problems at household and organizational levels

PO-10: Show the communication skills to utilize the existing opportunities

PO-11: Develop the skills to cope up with different challenges and show the team spirit at the workplace

PO-12: Ability to develop leadership and entrepreneurial qualities

PROGRAM SPECIFIC OUTCOMES (PSOs):

PSO–1: Application of conceptual knowledge of economic theories and ideas for the current economic situations

PSO–2: Demonstrate research orientation through projects or dissertations to optimally use technical skills

5.0. CURRICULUM STRUCTURE:

5.1. The Program Consists of

i) Foundation Courses (compulsory) which give general exposure to a Student in communication and subject related area.
ii) Core Courses (compulsory) with the latest concepts in theory and practice of Economics.
iii) Discipline centric electives which

are supportive to the discipline give expanded scope of the subject	}	Intra Departmental Electives
give inter disciplinary exposure Nurture the student skills	}	Inter Departmental Electives

iv) Open electives - which are of general nature and unrelated to the discipline to expose the student in areas such as general knowledge, personality development, economy, civil society, governance etc.

v) Major Projects (Dissertation)

vi) Internship

5.2. Each academic year consists of two semesters. The M.A. program has a curriculum and course content (syllabi) for the subjects recommended by the Board of Studies concerned and approved by the Academic Council. The course consists of individual subjects-theory as well as practical and dissertation, and is expressed in terms of a specified number of credits. Each course is assigned a certain number of credits depending upon the number of contact hours (lectures & tutorials) per week.

5.3 In general, credits are assigned to the courses based on the following contact hours per week per semester.

- One credit for each Lecture / Tutorial hour per week.
- One credit for two hours of Practical per week.
- Two credits for three (or more) hours of Practical per week.
- A theory course may be assigned credits ranging from 2 to 4
- A practical course may be assigned credits of 2 or 3
- Project work may be assigned credits of 4

5.4. The curriculum of M.A. Economics Program is designed to have a total of 108 credits, out of which a minimum of 94 credits are required for the award of M.A. Degree in Economics. However, with the Choice Based Credit System, a student is eligible to take extra courses in each semester and can earn additional credits. These could be skill building, foundation courses, open electives or discipline centered electives. There is a total of 19 compulsory core courses, 4 discipline centric elective courses, 1 compulsory foundation course and 1 compulsory Skill-building course and 4 open elective courses. A student is said to have successfully completed a particular semester program of study, when he/she earns all the credits of that semester i.e. he/she has no 'F' grade in any subject of that semester.

Table-4: Course Structure

Course level	No. of Courses	Total credits	Minimum credits required for the award of M.A. Degree	% of credits to be earned
A. Foundation/Skill building/General courses	2	06	06	6%
B. Core courses	19	74	74	79%
C. Discipline centric electives	4	16	8	9%
D. Open Electives	4	12	6	6%
Total	29	108	94	100%

Total credits of this program: 94

M.A. (Economics) Structure

Semester-I

S. No.	COURSE CODE	COURSE LEVEL	NAME OF THE COURSE	SESSIONS			MARKS			CREDITS
				THEORY	PRACTICAL	TOTAL	CA*	SEE**	TOTAL	
1.	GEC-701	Core	Principles of Microeconomics	4	--	4	40	60	100	4
2.	GEC-703	Core	Principles of Macroeconomics	4	--	4	40	60	100	4
3.	GEC-705	Core	Statistics for Economics	4	--	4	40	60	100	4
4.	GEC-707	Core	Theory of Public Finance	4	--	4	40	60	100	4
5.	GEC-709	Core	Indian Economy-I	4	--	4	40	60	100	4
6.	GEL-753	Foundation Course	Soft Skills	2	2	4	50	50	100	4
7.	VDC-111	Skill Building Course	Venture Discovery Course	2	--	2	50	--	50	2
8.		Total		24	02	26	300	350	650	26

*CA- Continuous Assessment **SEE- Semester End Examination

Semester-II

S.NO.	COURSE CODE	COURSE LEVEL	NAME OF THE COURSE	SESSIONS			MARKS			CREDITS
				THEORY	PRACTICAL	TOTAL	CA*	SEE**	TOTAL	
1.	GEC-702	Core	Advanced Microeconomics	4	--	4	40	60	100	4
2.	GEC-704	Core	Advanced Macroeconomics	4	--	4	40	60	100	4
3.	GEC-706	Core	Mathematics for Economics	4	--	4	40	60	100	4
4.	GEC-708	Core	Indian Public Finance	4	--	4	40	60	100	4
5.	GEC-710	Core	Indian Economy-II	4	--	4	40	60	100	4
6.	GOE-750 GOE-752	Open Elective	Social Innovation and Social Change (Or) Indian National Movement	3	--	3	40	60	100	3
		Total		23	0	23	240	360	600	23

*CA- Continuous Assessment **SEE- Semester End Examination

Semester-III

S.NO.	COURSE CODE	COURSE LEVEL	NAME OF THE COURSE	SESSIONS			MARKS			CREDITS
				THEORY	PRACTICAL	TOTAL	CA*	SEE**	TOTAL	
1.	GEC-801	Core	Economics of Growth and Development	4	--	4	40	60	100	4
2.	GEC-803	Core	Banking Theory and Practice	4	--	4	40	60	100	4
3.	GEC-805	Core	Principles of Econometrics	4	--	4	40	60	100	4
4.	GEC-807	Core	Research Methodology	4	--	4	40	60	100	4
5.	GEC-809 GEC-811	Discipline Centric Elective	Agricultural Economics (Or) Industrial Economics	4	--	4	40	60	100	4
6.	GOE-853 GOE-855	Open Elective	Stress Management (Or) Disaster Management	3	--	3	40	60	100	3
		Total		23	0	23	240	360	600	23

*CA- Continuous Assessment **SEE- Semester End Examination

Semester-IV

S.NO.	COURSE CODE	COURSE LEVEL	NAME OF THE COURSE	SESSIONS			MARKS			CREDITS
				THEORY	PRACTICAL	TOTAL	CA*	SEE**	TOTAL	
1.	GEC-802	Core	International Economics	4	--	4	40	60	100	4
2.	GEC-804	Core	Financial Institutions and Markets	4	--	4	40	60	100	4
3.	GEC-806	Core	Advanced Econometrics	4	--	4	40	60	100	4
4.	GEC-808 GEC-810	Discipline Centric Elective	Environmental Economics (Or) Economics of Insurance	4	--	4	40	60	100	4
5.	GEC-812	Core	***Dissertation	--	4	4	100	--	100	4
6.	GEC-814	Core	Viva voce	--	--	2	--	--	50	2
		Total		16	04	22	260	240	550	22

*CA- Continuous Assessment **SEE- Semester End Examination ***No theory only practical exam.

6.0 COMPLETE SYLALBUS

SEMESTER - I

GEC-701: PRINCIPLES OF MICROECONOMICS

Course Description: This course laid foundations to the economics. Microeconomics course is an introductory nature to the student of economics as it deals with the basic concepts of what is the behavior of consumer, producer and how they can both interact in the market to determine the prices of goods. In this course the fundamental theories of production, costs, revenue and theories of factors of production also discussed.

Course Objectives:

This course is intended to provide knowledge in foundations of microeconomics with respect to

1. The basic concepts of microeconomics
2. The demand and utility and related theories
3. The theory of production
4. The theory of costs and revenue and
5. The theory of factors of production

Course Syllabus

Unit-I: Introduction: Definitions of Economics; Scope of Economics – Micro and Macroeconomics; Methods of Economics – Normative and Positive Economics, Inductive and Deductive Methods; Economic Problem – Scarcity and Choice; Economic Variables, Models and Graphs.

Unit-II: Theory of Consumer Behavior: The Cardinal Utility Theory – Law of Diminishing Marginal Utility Theory, Law of Equi Marginal Utility Theory; The Indifference Curves Theory; The Revealed Preference Hypothesis; The Consumer's Surplus; Applications of Indifference Curves Analysis; Demand – Law of Demand, Elasticity of Demand, Recent Developments in the Theory of Demand; Supply - Law of Supply, Elasticity of Supply; Consumer Behaviour under Uncertainty Conditions.

Unit-III: Theory of Production: The Production Function for a Single Product; Laws of Production – The Law of Variable Proportions, Laws of Returns to Scale; Technological Progress and the Production Function; Optimal Combination of Factors of Production; The Production Function of a Multiproduct Firm.

Unit-IV: Theory of Costs and Revenue: The Traditional Theory of Costs – Short-run and Long-run Cost Curves; The Modern Theory of Costs – Short-run and Long-run Cost Curves; Engineering Cost Curves; Economies of Scale; Theory of Revenue.

Unit-V: Theory of Factors of Production: Factor Pricing in Perfectly Competitive Markets; Factor Pricing in Imperfectly Competitive Markets; Elasticity of Factor Substitution; Product Exhaustion Theorem; Theory of Rent; Theory of Wages; Theory of Interest; Theory of Profit.

Course Outcomes:

After completing this course, a student would be able to

1. Understand the basic concepts of microeconomics
2. Analyse the consumer behaviour
3. Examine the different production functions
4. Distinguish between short run and long run behaviour of costs and revenues and
5. Compare the factor pricing in different market structures

References:

1. Ahuja, H.L. (2019). *Advanced Economic Theory – Microeconomic Analysis*, 21st Ed. S. Chand Publishing, New Delhi.
2. Gregory N. Mankiw. (2018). *Principles of Economics*, 8th Ed., Cengage Learning, U.S.
3. Karl E. Case, Ray C. Fair & Sharon E. Oster. (2017). *Principles of Microeconomics*, 12th Ed., Pearson Education Ltd.
4. Koutsoyiannis, A. (1979). *Modern Microeconomics*, 2nd Ed., Macmillan Education, London.
5. Robert S. Pindyck & Daniel L. Rubinfeld. (2018). *Microeconomics*, 9th Ed., Pearson Education Ltd., New York.
6. Varian, H.R. (2014). *Intermediate Microeconomics – A Modern Approach*, 9th Ed., W.W. Norton & Company, New York.

GEC-703: PRINCIPLES OF MACROECONOMICS

Course Description: To assess the performance of an economy we always look at the level of GDP over the period of time. We talk about the levels of consumption, saving, investment, output and employment to predict in which way a country's economy is moving and to give some signals to the policy makers to take effective measures to sustain the economy. At this point, understanding the concepts of several macroeconomic variables and theories associated with them gives us a picture of the relationship between these variables and how they work together. This is the course which introduces the basic concepts which plays very important role when analyzing an economy from macroeconomic point of view. The theories associated with these fundamental macroeconomic variables also elaborated.

Course Objectives:

The aim of this course is to impart knowledge on the fundamentals of macroeconomics to make the students familiar with the

1. Concepts of national income and its estimating methods
2. Theories of consumption function
3. Theories of saving and investment
4. Theory of output and employment and
5. IS-LM Models

Course Syllabus

Unit-I: Circular Flow of Income and National Income: Origin and Growth of Macroeconomics; Concepts used in Macroeconomics; Circular Flow of Income in Two, Three and Four Sector Models; National Income – Concepts, Measurement and Problems associated with Measurement of National Income.

Unit-II: Theory of Consumption: Consumption Concepts – APC, MPC; Consumption Theories – Keynes, Fisher, Duesenberry, Modigliani, Friedman, Hall and Laibson; Determinants of Consumption.

Unit-III: Theory of Saving and Investment: Types of Saving and Investment; Determinants of Investment; Multiplier Effect and Types; Theories of Investment - Accelerator Theory, Flexible Accelerator Theory, Profits Theory, Duesenberry's Accelerator Theory, Financial Theory, Neoclassical Theory, q Theory of Investment.

Unit-IV: Theory of Output and Employment: Classical Theory of Output and Employment Determination; Keynesian Theory of Income determination – Two, Three and Four Sector Models; Determination of Ouptut, Prices and Employment - A Keynesian-Classical Synthesis.

Unit-V: IS-LM Model: IS-LM Model in Two Sector Framework - Derivation of IS and LM Curves and Equilibrium, Shifts in IS and LM Curves and the General Equilibrium; The IS-LM Model with the Government Sector - Fiscal Policy and the Product Market Equilibrium, Monetary Policy and Money Market Equilibrium, General Equilibrium and the Effect of Changes in Fiscal and Monetary Policies, Effectiveness of Monetary and Fiscal Policies; The IS-LM Model with Foreign Sector.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the behavior of macroeconomic variables such as national income, consumption and saving,
2. Analyse the various theories of consumption
3. Analyse the saving and investment theories and their determining factors
4. Compare the Classical and Keynesian views on output and employment and
5. Synthesise the framework of IS-LM model.

References:

1. Brian Snowdon & Howard R. Vane. (2005). *Macroeconomics – Its Origins, Development and Current State*, Edward Elgar, Cheltenham, UK and Northampton, MA, USA.
2. Dwivedi, D.N. (2018). *Macroeconomics – Theory and Policy*, 5th Ed., Tata McGraw Hill Publishers Ltd., New Delhi.
3. Gordon, Robert J. (2012). *Macroeconomics*, 12th Ed., Addison-Wesley.
4. Mankiw, Gregory N. (2016). *Macroeconomics*, 9th Ed., Worth Publishers, New York.
5. Oliver Blanchard. (2017). *Macroeconomics*, 7th Ed., Pearson Education Ltd., Indian Edition.
6. Rudiger Dornbusch, Stanley Fischer & Richard Startz. (2018). *Macroeconomics*, 12th Ed., Tata McGraw Hill Publishers Ltd., New Delhi.

GEC-705: STATISTICS FOR ECONOMICS

Course Description: All the economic theories revolve around various numbers and equations with different models. In the process of establishing relationship among economic variables or to estimate and predict the trends in economic data different mathematical and econometric models have been used. But at the end of the exercise we need to interpret different coefficients by using the concepts of statistics only. So, here the role of statistics is vital to identify significant and insignificant values. This is needed to accept or reject the various hypotheses framed to test the theories or to establish theories.

Course Objectives:

This course is aimed to make the student to acquaint with the tools of statistics in

1. Organisation of data, measures of central tendency and dispersion
2. Probability distributions and sampling methods
3. Correlation and regression techniques
4. The testing of hypothesis for small and large samples and
5. The use of index numbers and time series analysis

Course Syllabus

Unit-I: Tabulation of Data, Measures of Central Tendency and Dispersion: Sources of Data – Primary and Secondary; Methods of Collecting Primary Data; Classification of Data; Formation of Data – Discrete Frequency Distribution, Continuous Frequency Distribution; Tabulation of Data; Types of Tables; Presentation of Data through Diagrams; Graphic Presentation of Data – Time Series and Frequency Distributions; Methods of Central Tendency – Arithmetic Mean, Median, Mode, Geometric Mean and Harmonic Mean; Measures of Dispersion – Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation; Skewness, Moments and Kurtosis.

Unit-II: Probability, Theoretical Distributions and Sampling Methods: Probability - Definition of Probability, Concepts and Theorems of Probability, Conditional Probability, Bayes' Theorem; Theoretical Distributions – Binomial Distribution, Poisson Distribution, Normal Distribution; Sampling - Theoretical Basis of Sampling, Methods of Sampling – Probability and Non-probability Sampling.

Unit-III: Correlation and Regression: Types of Correlation; Methods of Studying Correlation – Scatter Diagram Method, Graphic Method, Karl Pearson's Coefficient of Correlation, Concurrent Deviation Method, Method of Least Squares; Coefficient of Correlation and Probable Error; Coefficient of Determination and Alienation; Properties of the Coefficient of Correlation; Rank Correlation Coefficient; Regression Equations; Standard Error of Estimate; Partial Correlation; Multiple Correlation; Multiple Regression.

Unit-IV: Testing of Hypothesis for Small and Large Samples, Chi-square, ANOVA and Non-parametric Statistics: Testing of Hypothesis – Procedure, Type-I and Type-II Errors, One-tailed and Two-tailed Tests; Standard Error; Tests of Significance for Large Samples; Tests of Significance for Small Samples – t-distribution; Chi-square Test and Goodness of Fit; Analysis of Variance (ANOVA) and F-test – One-way and Two-way, Analysis of Covariance

(ANCOVA); Non-parametric Statistics – Wilcoxon Sign Test, Runs Test, Kruskal-Wallis Test, Mann-Whitney U Test, Median Test, Kolmogrov Smirnov Test.

Unit-V: Index Numbers and Time Series Analysis: Index Numbers - Uses of Index Numbers, Problems in the Construction of Index Numbers, Methods of Constructing Index Numbers, Tests of Adequacy of Index Number Formulae, The Chain Index Numbers, Base Shifting, Splicing and Deflating the Index Numbers, Consumer Price Index Numbers; Time Series analysis – Components of Time Series, Methods of Measuring Trend – Graphic Method, Semi-average Method, Moving Average Method, Method of Least Squares, Measuring Trends by Logarithms – Exponential Trends, Growth Curves, Measurement of Seasonal Variations – Method of Simple Averages, Ratio-to-Trend Method, Ratio-to-Moving Average Method, Link Relative Method, Measurement of Cyclical Variations, Measurement of Irregular Variations.

Course Outcomes:

After completing this course, the student should be able to

1. Analyse the data for tabulation and derive summary statistics
2. Understand the concepts of probability and the techniques of drawing samples using different sampling methods
3. Distinguish between correlation and regression and able to use the formulas
4. Apply the testing of hypothesis procedure for both small and large samples and
5. Construct the index numbers and carry out time series techniques in economics.

References:

1. David P. Doane & Lori E. Seward. (2016). *Applied Statistics in Business and Economics*, 5th Ed., McGraw-Hill Education, New York.
2. David R. Anderson, Dennis J. Sweeny & Thomas A. Williams. (2011). *Statistics for Business and Economics*, 11th Ed., South Western Cengage Learning, Mason, USA.
3. Gerald Keller. (2018). *Statistics for Management and Economics*, 11th Ed., Cengage Learning, Boston, USA.
4. Gupta, S.P. (2018). *Statistical Methods*, 45th Ed., Sultan Chand & Sons Publishers, New Delhi.
5. Lind, Douglas A., Marchal, William G & Wathen, Samuel Adam. (2018). *Statistical Techniques in Business & Economics*, 17th Ed., McGraw-Hill Education, New York.
6. Paul Newbold, William L. Carlson & Betty M. Thorne. (2013). *Statistics for Business and Economics*, 8th Ed., Pearson Education, New York.
7. Robert R. Pagano. (2013). *Understanding Statistics in the Behavioural Sciences*, Wadsworth Publishers, Belmont, USA.
8. Sharma, J.K. (2020). *Business Statistics*, 5th Ed., Vikas Publishing, New Delhi.

GEC-707: THEORY OF PUBLIC FINANCE

Course Description: Every year government will place its revenue and expenditure levels in the form of budget in parliament. At that time, each and every economic agent starts analyzing the budget of government and gives their interpretation. The government tries to defend what it portrays in budget and the opposition tries to find out the pitfalls in allocation of resources. Even a layman also tries to know about new taxes introduced and incentives provided by the government to raise their level of savings. In this context, this public finance course introduces the various concepts regarding the role of government in resource allocation, political theories related to resource allocation, theories of revenue, expenditure and taxation etc. to become aware of these tenets of public finance.

Course Objectives:

The purpose of this course is to learn concepts and theories associated with the public finance in

1. The theory of public goods
2. The theories and causes of increasing public expenditure
3. Theory of taxation
4. Different forms of budgets and
5. Public debt management and the role of fiscal policy

Course Syllabus

Unit-I: Theory of Public Goods: Government intervention in the economy - Different Views; Functions of Government; Options for government intervention in markets; Meaning and Scope of Public Finance; Terminology and Types of Goods in Public Finance; Public Goods and Resource Allocation; Externalities and Market Failures; Property Rights and Coase Theorum; Theories of Public Interest - Bentham's Utilitarian Criterion, Dalton's Principle of Maximum Social Advantage, Pareto Criteria, Pigou's concept of Welfare; Theories of Public Choice - Median Voter Model, Arrow's Theorem, Strategic Voting, Plurality Voting, Point voting.

Unit-II: Public Expenditure: Classification of Public Expenditure; Canons of Public Expenditure; Theories of Public Expenditure - Wagner's Law of increasing State Activities, Peacock-Wiseman Hypothesis; Effects of Public Expenditure; Evaluation of Public Expenditure.

Unit-III: Public Revenue / Theory of Taxation: Concepts of Tax - Tax Base, Buoyancy and Elasticity of a Tax; Canons of Taxation; Characteristics of a Good Tax System; Objectives of Taxation; Classification of Taxes; Theories of Division of Tax Burden - Expediency Theory, Socio-Political Theory, Benefits Received Theory, Cost of Service Approach and Ability to Pay Theory; Optimal Taxation; Taxable Capacity; Theories of Tax Shifting - Concentration Theory, Diffusion Theory and Demand and Supply Theory; Incidence of Tax on different cases; Problem of Double Taxation; Effects of Taxation.

Unit-IV: Budget: Classification of Budgets; Balanced Budget, Balanced Budget Multiplier; Deficit Financing; Budgetary Deficits - Concepts and Measures; Performance and Program Budgeting System; Zero-based Budgeting; Incremental Budgeting; Gender Budgeting.

Unit-V: Public Debt and Fiscal Policy: Classification of Public Debt; Burden of Public Debt; Debt Redemption Methods; Role of Fiscal Policy in the Economy; Fiscal Policy Rules; Types of Fiscal Policy; Crowding-out and Crowing-in Effect.

References:

1. Bhatia, H.L. (2019). *Public Finance*, 29th Ed., Vikas Publishing House Pvt. Ltd., New Delhi.
2. David N. Hyman. (2010). *Public Finance – A Contemporary Application of Theory to Policy*, 10th Ed., South-Western Cengage Learning, Mason, USA.
3. Jean Hindriks & Gareth D. Myles. (2006). *Intermediate Public Economics*, The MIT Press, London.
4. Jonathan Gruber. (2016). *Public Finance and Public Policy*, 5th Ed., Worth Publishers, New York.
5. Richard A. Musgrave & Peggy B. Musgrave. (1989). *Public Finance in Theory and* Practice, McGraw-Hill Book Company, Singapore.
6. Sarma, J.V.M. (2018). *Public Finance*, 1st Ed., Oxford University Press, New Delhi.

GEC-709: INDIAN ECONOMY–I
(Structure, Resources and Developmental Issues)

Course Description: India being the second largest populated country, fifth largest economy in the world and one of the fastest growing economies at present century, evolved since independence. This course on Indian economy deals with its structure, resources and developmental issues. The growth of national income and its composition, natural resources, human resources along with infrastructural development discussed in detail. India is still facing the problems of several developmental issues such as poverty, unemployment, income inequalities etc. Despite facing these problems for decades our policy makers have been making different policies to eradicate these stigmas through adopting planning by several organizations at various levels. These policies also discussed critically to understand the root causes and find out solutions.

Course Objectives:

The aim of this course is to give a glimpse of Indian economy especially on the

1. Structure of the Indian economy
2. Availability of various forms natural resources and infrastructural facilities
3. Structure and composition of population and human resource policies
4. Current economic issues such as poverty, unemployment, income inequalities and
5. implementation and evaluation of the planning process

Course Syllabus

Unit-I: Structure of the Indian Economy: Indian Economy during British Rule; Nature of the Indian Economy - A Developing Economy; Trends in the Growth of National Income in India; Trends in Sectoral Composition of the National Income; Capital Formation in India.

Unit-II: Natural Resources and Infrastructure: Natural Resources in India - Land, Soil, Water, Forest, Mineral; Infrastructure in the Indian Economy - Electricity, Coal, Oil and Gas, Atomic Energy, Transport System in India - Railways, Road, Water and Air, Communications; Government Policies related to Natural Resources and Infrastructure; Environment and Development.

Unit-III: Human Resources, Demography: Population Growth and Economic Development; Demographic Transition Theory; India's Population - Size and Growth Trends; Population Explosion - Causes and Remedies; India's Population Policy; Migration in India; Urbanisation in India; Labour Force Growth in India; Occupational Structure and Distribution in India; Human Resource Development - Education in India, Education Policy, National Health Policy.

Unit-IV: Poverty and Unemployment, Income Inequalities and Regional Imbalances, Black Economy: Poverty - Concept, Estimates, Causes and Poverty Alleviation Programmes in India; Unemployment - Concept, Estimates, Causes and Employment Generation Programmes in India; Income Inequalities - Causes and Government Policies; Regional Imbalances - Concept, Magnitude and Regional Planning Policy in India; Black Economy - Definition, Estimation, Causes, Consequences and Government Measures.

Unit-V: - Planning: Planning in India - Objectives, Strategy of Planning, Investment Pattern; Achievements and Failures of Planning; Planning Institutions - NDC, Planning Commission, NITI Aayog.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the structure of Indian economy and the growth of national income
2. Analyse the government policies of natural resources and infrastructure
3. Evaluate the government policies of population and human resources
4. Examine the causes and remedial measures for problems such as poverty, unemployment income inequalities etc.
5. Evaluate the success and failures of planning system

References:

1. Ministry of Finance. (2019-20). *Economic Survey*, Government of India.
2. Gaurav Datt & Ashwani Mahajan. (2016). *Indian Economy*, 72nd Ed., S. Chand Publishing, New Delhi.
3. Jha, Raghabendra. (2018). *Facets of India's Economy and Her Society – Current State and Future Prospects*, Vol. II, Palgrave Macmillan, London.
4. Puri, V.K. & S.K. Misra. (2019). *Indian Economy – Its Development Experience*, 37th Ed., Himalaya Publishing House Pvt. Ltd., Mumbai.
5. Reserve Bank of India. (2018-19). *Handbook of Statistics on Indian Economy*, Mumbai.
6. Uma Kapila (2019). *Indian Economy – Performance and Policies*, 20th Ed., Academic Foundation, New Delhi.
7. Ministry of Finance. (2020-21). *Union Budget*, Government of India.
8. Yoginder Kumar Alagh (2018). *Economic Policy in a Liberalising Economy – Indian Reform in this Century*, Springer Nature Pvt. Ltd., Singapore.

GOE-753: FOUNDATION COURSE

SOFT SKILLS

Course Description: Communication plays a vital role in personal as well as professional life of an individual. Globalization and information technology have brought paradigm shifts in the pattern and frequency of communication in addition to making the concept of global village meaningful. A course on communication skills will help the student to develop good linguistic skills, both spoken and written, so as to enhance their interpersonal and professional interaction.

Course Objectives:

This course is intended to develop the skills in English with a focus on

1. Giving training to the students to develop oral communication skills
2. Developing the proper listening skills
3. To guide students to improve in writing skills without grammatical errors
4. To provide inputs to the students to develop professional speaking skills and
5. To develop students to learn the professional skills to adapt in the profession

Course Syllabus

Unit-I: Oral Communication: Introduction to communication: Communication as sharing - Stages of communication: ideation, encoding, transmission, decoding and response – Verbal and Non-Verbal Communication - Barriers to communication - Role of soft skills in communication.

Unit-II: Listening Skills: Listening Process: Hearing and Listening- Types of Listening: Superficial, Appreciative, Focused, Evaluative, attentive, Empathetic - Barriers to Listening: Physical, Psychological, Linguistic and cultural – Effective Listening Strategies.

Unit-III: Written Communication: Basics of written communication: simple sentences, subject verb agreement, active voice, spelling and punctuations – Preparing Resume and cover letter, difference between resume and CV- Reports: Types of reports, Formats, Structure of formal reports, Writing strategies; Proposals: Formats and Strategies; Technical articles: Formats, Dos and Don'ts.

Unit-IV: Professional Speaking: Interview Process: Types of Interviews, Pre-interview prepara tion techniques, Interview Questions, Answering Strategies, Frequently asked Questions.

Unit-V: Professional Skills: Group Discussion: Characteristics, Strategies, Individual Contrib ution, Interaction Strategies. Role of Life Skills: Honesty, Integrity, Empathy, Decision-Making and Common Sense.

Course Outcomes:

After the course in communication skills, the student should be able to:

1. Understand the process and forms of oral communication
2. Apply the listening skills effectively to grasp the content
3. Demonstrate the writing skills by preparing different reports, proposals etc.
4. Develop the professional speaking skills to appear in interviews and
5. Demonstrate the personal and professional skills to adapt to the working culture

References:

1. Dhanavel, S.P. (2010). *English and Soft Skills*, Orient Blackswan India.
2. Ghosh, B.N. (2012). *Managing Soft Skills for Personality Development*, McGraw Hill India, New Delhi.
3. Nawal, Mallika. (2012). *Business Communication*, Cengage Learning India Pvt. Ltd., New Delhi.
4. Rizvi, M Aharaf. (2005). *Effective Technical Communication*, Tata McGraw-Hill Publishing Ltd., New Delhi.
5. Sanjay Kumar & Pushp Lata. (2013). *Communication Skills*, Oxford University Press, New Delhi.

VDC-111: SKILL BUILDING COURSE

VENTURE DISCOVERY COURSE

Course Description: India as part of its Make in India initiative has been focusing on creating incubation centers within educational institutions, with an aim to generate successful start-ups. These start-ups will become employment creators than employment seekers, which is the need of the hour for our country. This common course for all the disciplines is a foundation on venture development. It is an experiential course that lets students venture and find out what is a business, financial and operating models of a business are. How to design and prototype a solutions that meets their customers' needs and generate revenue for the business.

Course Objectives:

This venture discovery course is really helpful to a student to know the process of starting a business. So the course is aimed to give some knowledge for the students

1. To understand different models required for a successful venture.
2. To understand the concepts of how to craft a mission for their venture.
3. To understand the concept of design and prototyping
4. To validate the business models
5. To tell any real life experience of any venture

Course Syllabus

Unit-I: Personal Values: Defining your personal values, Excite & Excel, Build a Team, Define purpose for a venture.

Unit-II: Solution Discovery: Craft and mission statement, Experience design, Gaining user insight, Concept design and positioning, Product line strategy.

Unit-III: Business Model Discovery: Prototyping solutions, Reality Checks, Understand your industry, Types of business models, Define Revenue Models, Define Operating Models.

Unit-IV: Discovery Integration: Illustrate business models, Validate business models, Define company impact.

Unit-V: Tell a Story: Can you make money, Tell your venture story.

Course Outcomes:

After the course the student should be able to:

1. Understand conceptual framework of the foundation of a venture
2. Understand the concept of purpose, mission and value-add service offered by a venture
3. Demonstrate prototyping
4. Analyze business, revenue and operating models and
5. Describe the personal experience of a venture

References:

1. Vikalpa, Indian Institute of Management, Ahmedabad
2. Journal of General Management, Mercury House Business Publications Limited
3. Harvard Business Review, Harvard Business School Publishing Co. USA

SEMESTER - II

GEC-702: ADVANCED MICROECONOMICS

Course Description: This course in microeconomics starts with understanding the market structure and the price and output determination in different markets structures viz., perfect and imperfect competition. Then it discussed the strategies adopted by the firms to decide the price of their product and the objectives and various theories of the firms such as managerial and behavioural theories of the firm. Finally, this course determines how general equilibrium in the economy attained using Walrasian model and provide some inputs on welfare economics concepts of Kaldor, Hicks and Pareto.

Course Objectives:

This advanced microeconomics course is designed to provide knowledge to the student with respect to

1. The perfect competition and monopoly market structures
2. Monopolistic competition and oligopoly market structures
3. Various forms of pricing strategies adopted by the firms
4. Theories of firms based on different objectives
5. General equilibrium of the economy and foundations in welfare economics

Course Syllabus

Unit-I: Market Structure – I: Classification of Markets; The Concept of an Industry; Perfect Competition – Short-run and Long-run Equilibrium; Monopoly - Short-run and Long-run Equilibrium; Bilateral Monopoly; Comparison of Perfect Competition and Monopoly.

Unit-II: Market Structure – II: Monopolistic Competition; Monopsony; Oligopoly – Cartels, Price Leadership; Duopoly – Cournot's Model, Bertrand's Model, Chamberlin's Model, Stackelberg's Model.

Unit-III: Pricing Strategies: Marginalist Controversy; Price Discrimination; Average Cost Pricing Method; Limit-pricing Theory; Mark-up Pricing; Two-part Pricing; Multiple Product Pricing; Joint Product Pricing; Transfer Pricing.

Unit-IV: Theories of the Firm: Objectives of the Firm; Managerial Theories of the Firm – Baumol, Morris, Williamson; Behavioural Theory of the Firm; Game Theory.

Unit-V: General Equilibrium and Welfare Economics: Walrasian General Equilibrium Model; Pareto-Optimality Criterion; Kaldor-Hicks Compensation Criterion; Bergson's Social Welfare Function; Externalities; Public Goods; Asymmetric Information; Behavioural Economics.

Course Outcomes:

After completing this course, the student should be able to

1. Compare the price determination under perfect competition and monopoly market structures
2. Analyse the monopolistic market and oligopoly market behavour
3. Examine the pricing strategies of the firms
4. Distinguish various theories of the firms based on different objectives and
5. Understand the concepts of general equilibrium and welfare economics

References:

1. Ahuja, H.L. (2019). *Advanced Economic Theory – Microeconomic Analysis*, 21st Ed. S. Chand Publishing, New Delhi.
2. Gregory N. Mankiw. (2018). *Principles of Econom*ics, 8th Ed., Cengage Learning, U.S.
3. Karl E. Case, Ray C. Fair & Sharon E. Oster. (2017). *Principles of Microeconomics*, 12th Ed., Pearson Education Ltd.
4. Koutsoyiannis, A. (1979). *Modern Microeconomics*, 2nd Ed., Macmillan Education,
5. MarK Hirschey & Eric Bentzen. (2016). *Managerial Economics*, 14th Ed., Cengage Learning, U.S.
6. Robert S. Pindyck & Daniel L. Rubinfeld. (2018). *Microeconomics*, 9th Ed., Pearson Education Ltd., New York.
7. Varian, H.R. (2014). *Intermediate Microeconomics – A Modern Approach*, 9th Ed., W.W. Norton & Company, New York.

GEC-704: ADVANCED MACROECONOMICS

Course Description: This advanced macroeconomics course covers the classical, Keynesian and post-Keynesian theories related to demand and supply of money, inflation and business cycles. Later on this course concentrates on the foreign exchange market and balance of payments. It depicts clearly how the exchange rate was determined in the foreign exchange and the structure of balance of payments of a country along with the theories associated with these topics and how to remove the disequilibrium in balance of payments by adopting monetary and fiscal policies. This course ends with the discussion on macroeconomic policies with an emphasis on monetary and fiscal policies and the post-Keynesian macroeconomic developments.

Course Objectives:

This course is designed to provide advanced conceptual knowledge in macroeconomics in the areas of

1. Theories of demand for money and supply of money
2. Theories of inflation and unemployment
3. Theories of business cycles
4. Foreign exchange market and balance of payments structure and equilibrium and disequilibrium and
5. Objectives and Instruments of monetary and fiscal policies

Course Syllabus

Unit-I: Theory of Money: Definitions, Types and Functions of Money; The Supply of Money - High Powered Money, Credit Creation, Theory of Money Supply, Money Multiplier and its Determinants; The Demand for Money - Classical Theory, Keynesian Theory, Post-Keynesian Theories - Portfolio Theory, Baumol-Tobin Approach, Tobin's Theory, Friedman's Theory.

Unit-II: Theory of Inflation and Unemployment: Definitiion and Types of Inflation; Measures of Inflation; Effects of Inflaltion; Theories of Inflation - The Classical Theory, Neo-classical Theory, Keynesian Theory, Monetarist Theory, Modern Theory - demand-pull and Cost-jpush Inflation, Structuralist Approrach; Measures to Control Inflation; Types of Unemployment; Inflation and Unemployment - The Philips Curve and its Modifications.

Unit-III: Theory of Business Cycles: Business Cycles - Types, Characteristics, Phases, Effects; Causes and Control Measures of Business Cycles; Theories of Business Cycles - Hawtrey's Monetary Theory, Hayek's Over-Investment Theory, Schumpeter's Innovation Theory, Samuelson's Multiplier-Acccelerator Model of Businesss Cycle, Hick's Theory of Business Cycle, Goodwin's Trade Cycle Model; Kaldor's Model of Trade Cycle.

Unit-IV: Open Economy Macroeconomics: Foreign Exchange Market - Functions, Types and Transactions; Determination of Foreign Exchange - Market Theory, Purchasing Power Parity Theory; Structure of Balance of Payments; Disequilibrium in Balance of Payments - Types, Causes and Adjustment Measures - Automatic Adjustment, Adjustment through Policy Measures - Expenditure Changing Policies (Monetary, Fiscal), Expenditure Switching (Devaluation, Revaluation), Monetary Approach.

Unit-V: Macroeconomic Policies and New Macroeconomics: Objectives of Macroeconomic Policies; Monetary Policy - Meaning, Instruments, Transmission Mechanism, Limitations; Fiscal Policy - Meaning, Types, Instruments, Limitations; Fiscal Policy and Macroeconomic Goals; Crowding-Out and Crowding-In Effect; Post-Keynesian Macroeconomics - Monetarist School, New Classicals, Supply-side Economics.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the theories of demand for money and supply of money
2. Analyse the theories of inflation and the linkage between inflation and unemployment
3. Analyse the causes, consequences, measures and theories of business cycles and
4. Examine the foreign exchange market and balance of payments structure and equilibrium and disequilibrium and
5. Understand the open economy macroeconomics and macroeconomic policies.

References:

1. Brian Snowdon & Howard R. Vane. (2005). *Macroeconomics – Its Origins, Development and Current State*, Edward Elgar, Cheltenham, UK and Northampton, MA, USA.
2. Dwivedi, D.N. (2018). *Macroeconomics – Theory and Policy*, 5th Ed., Tata McGraw Hill Publishers Ltd., New Delhi.
3. Gordon, Robert J. (2012). *Macroeconomics*, 12th Ed., Addison-Wesley.
4. Mankiw, Gregory N. (2016). *Macroeconomics*, 9th Ed., Worth Publishers, New York.
5. Oliver Blanchard. (2017). *Macroeconomics*, 7th Ed., Pearson Education Ltd., Indian Edition.
6. Rudiger Dornbusch, Stanley Fischer & Richard Startz. (2018). *Macroeconomics*, 12th Ed., Tata McGraw Hill Publishers Ltd., New Delhi.

GEC-706: MATHEMATICS FOR ECONOMICS

Course Description: This course is very useful to understand the rules of mathematics and their application in the field of economics. In this course, the mathematical concepts of functions, differentiation, integration, differential and difference equations, matrices and linear programming are explained. In economics, different types of data and variables are included to study various economic theories related to the branches of economics such as agriculture, foreign trade, macroeconomics, microeconomics, insurance etc. By considering the context and the availability of data and variables we need to choose the appropriate mathematical model to understand the relationship among different variables and to develop theories. This knowledge one will gain by studying this course.

Course Objectives:

This course outcome is to make the student familiar with the tools of mathematics with a focus on

1. The concepts and application of differentiation and derivation in economics
2. The economic applications of integrals
3. The concepts of differential and difference equations and their applications in economics
4. Application of matrices in input-output models and
5. Conceptual and application part of linear programming

Course Syllabus

Unit-I: Basic Calculus – Functions, Limits, Differentiation: Sets - The Concept of Sets, Laws of Set Operations; Functions - Types of Functions, Functions of Two or More Independent Variables; The Concept of Limit and Limit Theorems; Differentiation - Rate of Change, The Derivative and Slope of a Curve, Continuity and Differentiability of a Function, Rules of Differentiation for a Function of One Variable, Rules of Differentiation involving Two or More Functions of the Same Variable, Rules of Differentiation involving Functions of Different Variables, Partial Differentiation; Total Differentials and Rules of Differentials; Total Derivatives; Derivatives of Implicit Functions, Second and Higher Derivatives; Second Derivative Tests; Digression on Maclaurin and Taylor Series; Exponential and Logarithmic Functions; Optimization Problems - More than One Choice Variable, Equality Constraints, Lagrange Multiplier Method, Economic Applications.

Unit-II: Integration: Indefinite Integrals - Basic Rules, Rules of Operation, Rules involving Substitution; Definite Integrals - Properties; Improper Integrals; Economic Applications.

Unit-III: Differential and Difference Equations: First-Order Linear Differential Equations - Constant Coefficient and Constant Term, Variable Coefficient and Variable Term; Exact Differential Equations; Nonlinear Differential Equations of the First Order and First Degree; Second-Order Linear Differential Equations - Constant Coefficient and Constant Term, Differential Equations with a Variable Term; Higher-Order Linear Differential Equations; First-Order Difference Equations; Nonlinear Difference Equations; Higher-Order Difference Equations - Second-Order Linear Difference Equations with Constant Coefficients and Constant Term, Generalisations to Variable-Term and Higher-Order Equations; Simultaneous Differential Equations and Difference Equations; Linearization of a Nonlinear Differential-Equation System; Economic Applications.

Unit-IV: Linear Algebra - Matrices: Matrices and Vectors - Matrix Operations, Vector Operations, Commutative, Associative and Distributive Laws, Identity Matrices and Null Matrices, Transposes and Inverses, Conditions for Nonsingularity of a Matrix, Test of Singularity by use of Determinant, Basic Properties of Determinants, Cramer's Rule, Economic Applications - Input-Output Model.

Unit-V: Linear Programming: General Formulation of Linear Program, Convex Sets and Linear Programming, Simplex Method; Duality Theorems; Nonlinear Programming - Kuhn-Tucker Conditions; Economic Applications.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the concepts and application of differentiation and derivation in economics
2. Application of the concept of integrals in economics
3. Understand the concepts of differential and difference equations and their applications in economics
4. Analyse the input-output models using matrices
5. Examine the application of linear programming in economics

References:

1. Alpha C. Chiang & Kevin Wainwright. (2005). *Fundamental Methods of Mathematical Economics*, 4th Ed., McGraw-Hill Irwin Publishers, New York.
2. Edward T. Dowling. (2001). *Introduction to Mathematical Economics,* 3rd Ed., McGraw-Hill Publishers, New York.
3. Geoff Renshaw. (2012). *Maths for Economics*, 3rd Ed., Oxford University Press, New York.
4. Jacques, Ian. (2018). *Mathematics for Economics and Business*, 9th Ed., Pearson Education Ltd., London.
5. Michael Klein. (2014). *Mathematical Methods for Economics*, 2nd Ed., Pearson Education Ltd., Harlow, UK.
6. Sydsaeter, Knut., Hammond Peter, J et. al. (2016). *Essential Mathematics for Economic Analysis*, 5th Ed., Pearson Education Ltd., Harlow, UK.

GEC-708: INDIAN PUBLIC FINANCE

Course Description: This course is about Indian public finance and its development since independence. In this course the growth of revenue, expenditure and public debt of the central government is studied along with the growth of revenue and expenditure of the state governments. The structure of Indian taxation system, reforms over the period of time with a focus on recent trends like GST is also covered. The issues related to Centre-State financial relations discussed elaborately by analyzing the resource allocation recommended by the Finance Commission from time to time. Then the role of fiscal policy, fiscal monitoring in India through various institutions and fiscal reforms also analysed critically.

Course Objectives:

The aim of this course is to provide the knowledge of Indian public finance with a focus on

1. Trends in the growth of public revenue and expenditure of central and state governments
2. Tax system and tax reforms
3. Growth of public debt and budget reforms
4. Central state financial relations and
5. Fiscal policy and the role of different organisations

Course Syllabus

Unit-I: Public Revenue and Expenditure in India: Trends in Receipts of Central Government; Trends in Receipts of State Governments; Trends in Public Expenditure of Central Government; Trends in Public Expenditure of State Governments; State Finances; Local Finances.

Unit-II: Tax System in India: Features of Indian Tax System; Direct Taxes in India - Income and Wealth Tax in India; Indirect Taxes in India - Value Added Tax (VAT), Goods and Services Tax (GST); Tax Reforms in India; Tax Evasion and Tax Avoidance.

Unit-III: Public Debt and Budgeting in India: Debt Composition; Causes of Growth of Public Debt in India; Burden of Public Debt in India; Debt of State Governments; Indian budget and its Features; Making of a Budget in India; Budget Documents in India; Budget Reforms in India.

Unit-IV: Centre-state Financial Relations: Pre-independence Evolution; Financial Federalism under Constitution; Features of Indian Federal Financial System; Finance Commission - Role in Tax Sharing, Grants-in-aid; Provisions for Special Category States.

Unit-V: India's Fiscal Policy: Need for Fiscal Monitoring in India; Institutional Arrangements for Fiscal Monitoring in India - Finance Commission, Planning Commission, NITI Aayog, RBI, CAG, Legislative Control; Fiscal Reforms in India; Evolution of Rule-based Fiscal Monitoring in India; FRBM Act in India.

Course Outcomes:

After completing this course, the student should be able to

1. Analyse the trends of public revenue and expenditure of central and state governments
2. Synthesise the structure and reforms of direct and indirect taxation
3. Examine the growth of public debt and budget reforms
4. Evaluate the Centre-state financial relations and
5. Analyse the performance of fiscal policy of India

References:

1. Bhatia, H.L (2019). *Public Finance*, 29th Ed., Vikas Publishing House Pvt. Ltd., New Delhi.
2. Ministry of Finance. (2019-20). *Economic Survey*, Government of India.
3. Gaurav Datt & Ashwani Mahajan. (2016). *Indian Economy*, 72nd Ed., S. Chand Publishing, New Delhi.
4. Puri, V.K. & S.K. Misra. (2019). *Indian Economy – Its Development Experience*, 37th Ed., Himalaya Publishing House Pvt. Ltd., Mumbai.
5. Reserve Bank of India (2018-19). *Handbook of Statistics on Indian Economy*, Mumbai.
6. Reserve Bank of India (2019-20). *State Finances: A Study of Budgets*, Mumbai.
7. Sarma, J.V.M (2018). *Public Finance*, 1st Ed., Oxford University Press, New Delhi.
8. Ministry of Finance. (2020-21). *Union Budget*, Government of India.

GEC-710: INDIAN ECONOMY – II
(Sectoral Analysis)

Course Description: This course on Indian economy focused on different sectoral aspects. It reveals the picture of Indian agriculture, industrial, banking and foreign trade since independence and observes the prospects and challenges of these sectors. Further, the policies of the government to boost these sectors and the incentives to strengthen wherever necessary discussed critically. The impact of liberalization, WTO agreements on the Indian economy on different sectors particularly post-liberalisation period are studied which have more prominence to switch over the policies.

Course Objectives:

This course aim is to analyse the Indian economy from different sectors point of view. This course covers the topics in different sectors with a focus on

1. Agricultural sector problems and policies of the government
2. Industrial and service sector problems and policies of the government
3. Banking sector issues and policies of the government
4. Structure of foreign trade and policies of the government
5. Globalization and economic reforms

Course Syllabus

Unit-I: Indian Agriculture: Indian Agriculture - Role, Naure and Cropping Pattern; Land Reforms in India; Agricultural Production - Trends, Causes for Low Level of Production and Government Measures to increase Production; Agricultural Inputs and Green Revolution; Agricultural Finance and Marketing; Trends in Agricultural Investment; Agricultural Prices and Price Policy; Agricultural Subsidies and Food Security in India; Agricultural Labour; WTO and Indian Agriculture; Policies for Agriculture and Rural Development.

Unit-II: Indian Industrial and Service Sectors: Trends in Industrial Production in India; Problems and Programmes of Industrial Development; Major Industries of India - Iron and Steel, Jute, Textile, Sugar and Cement; Small Scale and Cottage Industries - Importance, Problems and Programmes; Industrial Policies; Public Sector and Disinvestment Programme; Industrial Sickness - Definition, Causes, Consequences and Remedial Measures; Industrial Financing Institutions; Labour Relations and Social Security; Corporate Social Responsibility; CCI and Competition Act; Service Sector in Indian Economy.

Unit-III: Indian Banking Sector and Inflation: Commercial Banking in India; The Reserve Bank of India; Banking Sector Reforms; Problems of Banking Sector; Indian Money Market; Indian Capital Market; Price Trends in India.

Unit-IV: Indian Foreign Trade: India's Foreign Trade - Value, Composition and Direction; India's Balance of Payments; Foreign Trade Policy; Foreign Capital and Aid; India's Exchange Rate Policy and Foreign Exchange Reserves; Multinational Corporations; FERA and FEMA.

Unit-V: WTO, LPG: WTO - Evolution, Structure, Functions and Agreements, WTO and India; Globalisation and its impact on the Indian Economy; Economic Reforms and Liberalisation.

Course Outcomes:

After completing this course, the student should be able to

1. Analyse the agricultural sector problems and policies of the government
2. Examine the industrial and service sector problems and policies of the government
3. Evaluate the banking sector issues and policies of the government
4. Analyse the trends and pattern of India's foreign trade and
5. Evaluate the reform measures initiated in Indian economy in view of globalization.

References:

1. Ministry of Finance. (2019-20). *Economic Survey*, Government of India.
2. Gaurav Datt & Ashwani Mahajan. (2016). *Indian Economy*, 72nd Ed., S. Chand Publishing, New Delhi.
3. Jha, Raghabendra. (2018). *Facets of India's Economy and Her Society – Current State and Future Prospects*, Vol. II, Palgrave Macmillan, London.
4. Puri, V.K. & S.K. Misra. (2019). *Indian Economy – Its Development Experience*, 37th Ed., Himalaya Publishing House Pvt. Ltd., Mumbai.
5. Reserve Bank of India. (2018-19). *Handbook of Statistics on Indian Economy*, Mumbai.
6. Uma Kapila. (2019). *Indian Economy – Performance and Policies*, 20th Ed., Academic Foundation, New Delhi.
7. Ministry of Finance. (2020-21). *Union Budget*, Government of India.
8. Yoginder Kumar Alagh. (2018). *Economic Policy in a Liberalising Economy – Indian Reform in this Century*, Springer Nature Pvt. Ltd., Singapore.

OPEN ELECTIVE

GOE-750: SOCIAL INNOVATION AND SOCIAL CHANGE

Course Description: This course engenders a critical thinking on the dominant paradigm of the market as an agent of social change. As traditional boundaries between the government, market and communities blur, this course facilitates an understanding of opportunities and challenges for innovation in a new landscape.

Course Objectives:

This course aim is to provide basic idea of social innovation with a focus on

1. History of the social innovation
2. Overview of the concept and process of social innovation
3. Generate knowledge of and exposure to agents involved in connecting innovative ideas to people and resources
4. The ways of getting support for social innovation
5. Illustrate community based innovations in India leading to social change

Course Syllabus

Unit-I: What Social Innovation Is: Defining Social Innovation; The Context for Social Innovation; Fields for Social Innovation; A Short History of Social Innovation; An Emerging Social Economy.

Unit-II: The Process of Social Innovation: Prompts, Inspirations and Diagnoses; Proposals and Ideas; Prototyping and Pilots; Sustaining; Scaling and Diffusion; Systemic Change.

Unit-III: Connecting People, Ideas and Resources: Intermediaries; Championing Innovation; Innovation Teams; Innovation Hubs; Institutions to Drive Innovation; Innovation Networks; Innovation Platforms.

Unit-IV: Ways of Supporting Social Innovation: Support in the Public Sector; Support in the Grant Economy; Support in the Market Economy; Support in the Informal or Household Economy.

Unit-V: Case Studies in Community Innovation for Social Change – SELCO; Amul; Deccan Development Society; Mirakle Couriers; Dastkar Andhra; Akshayapatra Foundation; Aravind Eye Hospitals; Stories from Tomorrow.

Course Outcomes:

At the end of this course, the student would be able to:

1. Understand the concept and the history of social innovation
2. Understand the context and the processes involved in social innovation
3. Analyse the agents involved in connecting innovative ideas to people and resources
4. Critically evaluate the ecosystem for social innovation and change in India and
5. Explore and illustrate innovative ideas that are set to create social impact

References:

1. Mulgan, G., Tucker, S., Ali, R. & Sanders, B. (2007). *Social Innovation: What it is, why it matters and How it can be Accelerated,* The Young Foundation, London.
2. Murray, R., Caulier-Grice, J. & Mulgan, G. (2010). *The Open Book of Social Innovation,* The Young Foundation, London.
3. Nicholls, A., Simon, J. & Gabriel, M. (2015). *New Frontiers in Social Innovation Research,* Palgrave Macmillan, New York.

OPEN ELECTIVE

GOE-752: INDIAN NATIONAL MOVEMENT

Course Description: The Indian independence movement was a mass-based movement that encompassed various sections of society. It also underwent a process of constant ideological evolution. The movement was unique in that while the basic ideology was anti-colonial, it also focused on capitalist economic development within the framework of a secular, democratic and civil libertarian political structure.

Course Objectives:

This course is designed to provide an insight to the student on Indian national movement with a special focus on

1. The causes and consequences of 1857 revolt
2. The Indian national movement during the phase 1905-1918
3. The Indian national movement during the phase 1919-1939
4. The Indian national movement during the phase from second world war to the independence and
5. Partition and the integration of Indian states

Course Syllabus

Unit-I: Early Rebellions and the revolt of 1857: Paik rebellion, Vellore mutiny, Cotiote War, Sepoy Mutiny of 1857- Significance of Sepoy Mutiny, Various reasons for sepoy mutiny- Consequences of the revolt.

Unit-II: National Movement 1905-1918: Bengal Partition, anti partition movement and the birth of Swadeshi-various leaders and their contributions- contributions of Surendranath Banerjee

Unit-III: National Movement 1919-1939: Gandhi's entry into Indian National Movement- Various Satyagrahas and their impacts-Rowlett Act and Jallianwalabagh Tragedy- Khilafat and non-cooperation movements- Extremist Politics and various leaders- Civil Disobedience movement and salt satyagraha- Round Table Conferences- Gandhi-Irwin Pact and Poona Pact- Indian National Army and its activities-INM during the second world war.

Unit-IV: National Movement- Towards Independence: Impact of Second World War on INM- August Offer- Cripps Mission-Quit India movement- CR Rajagopalachari formula- Desai-Liaquat formula-Wavell Plan-Cabinet Mission-Mountbatten Plan

Unit-V: Partition and the Indian States: Partition and its impacts- political Integration of Indian states- Major disagreements- independence of French and Portugal colonies- post integration.

Course Outcomes:

At the end of this course, the student would be able to:

1. Analyse the causes and consequences of 1857 revolt
2. Examine the Indian national movement during the phase 1905-1918
3. Critically analyse the Indian national movement during the phase 1919-1939
4. Evaluate the Indian national movement during the phase from second world war to the independence and
5. Critically analyze the partition and the integration of Indian states

References:

1) Bandyopadhyay, S. (2004). From Plassey to Partition: A History of Modern India. Hyderabad: Orient Longman.
2) Chandra, M., Mukherjee, M., Mukherjee, A., Panikkar, K.N. & Mahajan, S. (1987). India's Struggle for Independence. New Delhi: Penguin.
3) Chandra, M., Mukherjee, M., Mukherjee, A., Panikkar, K.N. & Mahajan, S. (2003). India After Independence. New Delhi: Penguin.
4) Metcalf, B.D. & Metcalf, T.R. (2012). *A Concise History of Modern India*, Cambridge University Press, New York.
5) Vajpeyi, A. (2012). Righteous Republic: The Political Foundations of Modern India. Cambridge: Harvard University Press.

SECOND YEAR SYLALBUS

SEMESTER - III

GEC-801: ECONOMICS OF GROWTH AND DEVELOPMENT

Course Description: The world is divided into developed and underdeveloped or developing regions based on some parameters such as GDP, HDI. To understand the causes behind the development and underdevelopment of different regions of the world, we need a theoretical perspective of what is development, what are the factors that causes development. Hence, this course is designed to discuss elaborately all the conceptual, theoretical views of economic development.

Course Objectives:

This course intended to give the conceptual knowledge and different approaches on economic growth and development with a focus on

1. Concepts and approaches of economic growth and development
2. Classical theories of economic development
3. Structural theories of economic development
4. Theories of economic growth and
5. Problems of economic development

Course Syllabus

Unit-I: Development Economics - Concepts and Approaches: Economic Growth and Economic Development; Indicators of development; Economic Growth and Income Distribution – Kuznets Hypothesis; Obstacles to Economic Development; Factors of Economic Growth; Characteristics of an underdeveloped country; Sustainable Development Goals (SDGs); Millennium Development Goals (MDGs).

Unit-II: Classical Theories of Economic Development: Adam Smith; Ricardo; Malthus; Mill; Karl Marx; Schumpeter; Classical Theory.

Unit-III: Structural Theories of Economic Development: Rostow's Stages of Economic Development; Nurkse's Theory of Disguised Unemployment; Lewis Theory of Unlimited Supplies of Labour; Fei-Ranis Theory; Jorgenson's Neo-Classical Model of a Dual Economy; Harris-Todaro Model of Migration and Unemployment; Leibenstein's Critical Minimum Effort Thesis; Nelson's Low-Level Equilibrium Trap; The "Big Push" Theory; Theory of Balanced and Unbalanced Growth; Dualistic Theories; The Dependency Theory of Underdevelopment; Myrdal's Theory of Circular Causation; Kremer's O-Ring Theory of Economic Development.

Unit-IV: Theories of Economic Growth: The Harrod-Domar Model; Joan Robinson's Model of Capital Accumulation; The Solow Model of Long-Run Growth; The Kaldor Model of Growth; The Model's of Technical Change; The Uzawa Two-Sector Growth Model; Steady State Growth; The Golden Rule of Accumulation; The new Endogenous Growth Theory; The Cambridge Capital Controversy in The Neo-classical Analysis of Growth.

Unit-V: Problems and Strategies of Development Economics: Problems of Development - Measuring Poverty and Inequality; Population and Economic Development; Urbanisation and Mirgration; Human Capital in Economic Development; Agriculture and Economic Development; Environment and Development; Role of State and Market in Economic Development; International Trade and Economic Development; Foreign Investment, Aid and Economic Development; Strategies of Development – Cost-benefit Analysis; Choice of Techniques; Investment Criteria.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the concepts and approaches of growth and development,
2. Analyse the classical theories of economic development
3. Examine the structural theories of economic development
4. Compare and contrast the theories of economic growth and
5. Evaluate the problems of development economics

References:

1. A.K. Sen. (1999). *Development as Freedom*, Oxford University Press, London.
2. Debraj Ray. (1999). *Development Economics*, Oxford University Press, New Delhi.
3. Gerald M. Meier and James E Rauch, (2005): *Leading Issues in Economic Development*, 8th Ed., Oxford University Press, New York.
4. Hayami, Yujiro and Yoshihisa Godo. (2005). *Development Economics: From the Poverty to the Wealth of Nation*, 3rd Ed., Oxford University Press, New Delhi.
5. Jhingan M.L. & B.K. Jhingan. (2020). *The Economics of Development and Planning*, 42nd Ed., Vrinda Publications (P) Ltd., Delhi.
6. Kaushik Basu. (1998). *Analytical Development Economics: The Less Developed Economy Revisited*, Oxford University Press, New Delhi.
7. Michael P. Todaro & Stephen C. Smith. (2015). *Economic Development*, 12th Ed., Pearson Education Ltd., New York.
8. Thirlwall A.P. & Penelope Pacheco-Lopez. (2017). *Economics of Development: Theory and Evidence*, 10th Ed., Red Globe Press, London.

GEC-803: BANKING THEORY AND PRACTICE

Course Description: This course is designed to give conceptual knowledge to the student on banking system and how it operates with different instruments. It starts with the understanding of the importance of banking system for the economic development and provides an insight to the evolution of banking system in India with Reserve Bank of India as central bank. Then it discusses the relationship of banker and customer based on different types of customers. Then the basic operations of the bank such as accepting deposits, issuing cheques, loans and aspects related to securities while issuing loans and government norms on priority sector lending also discussed. Different types of banking systems, bank portfolio management and Basel norms are also discussed. Finally, the reforms introduced in the Indian banking system and recent trends in banking sector are elaborated.

Course Objectives:

This course is to introduce the banking system to the student with a focus on

1. Evolution of banking and different forms of banking systems in India
2. Banker-customer relationship
3. Banking instruments and services
4. Banking systems and management
5. Banking sector reforms

Course Syllabus

Unit-I: Introduction to Banking: Evolution of banking in India; Classification of Banks - Central Bank, Commercial Banks, Investment Banks, Regional Rural Banks, Cooperative Banks, Land Development Banks, Exchange Banks, Private Sector Banks, Small and Payment Banks; Commercial Banks and Economic Development; Banking System in India; The Banking Regulations Act 1949, Reserve Bank of India – Structure, Functions, Credit Creation and its Control; Growth of Banking in India.

Unit-II: Banker-Customer Relationship: The relationship between a banker and a customer; General and Special Relationship; KYC Norms; Banker's Lien; Types of Customers; Paying Banker; Collecting Banker; Rights of a Banker.

Unit-III: Banking Instruments and Services: Instruments – Deposits, Passbook, Negotiable Instruments – Material Alteration, Crossing, Endorsement and Marking of Cheques, Bank Draft; Bills of Exchange; Letters of Credit; Bill of Lading; Credit, Debit and Master Cards; ATMs; **Services** - Loans and Advances, Modes of Charging Security, Unsecured Advances, Securities for Advances, Advances against Goods, Advances against Stock Exchange Securities, Miscellaneous Securities, Agency Services, General Services and Consultancy Services; Priority Sector Lending.

Unit-IV: Banking Systems and Management: Systems – Branch Banking, Unit Banking**,** Correspondent Banking, Group Banking, Chain Banking, Deposit Banking, Investment Banking, Mixed Banking, Narrow Banking, Universal Banking, Local Area Banks, Off Shore Banking, Corporate Banking; Retail Banking; E-banking; **Management –** Portfolio

Management – Balance Sheet of a Bank, Credit Appraisal; Risk Management in Banks; Basel Norms – I, II and III.

Unit-V: Banking Sector Reforms and Issues in India: Narasimham Committee Reforms-Phase-I and Phase-II, Banking Regulation in India – RBI Guidelines; Non-Performing Assets (NPAs); Privatisation of Banks; Recent Trends in Banking Sector in India.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the functioning of banking system and different banking systems
2. Understand the banker-customer relationship
3. Examine the instruments and services used by the banks
4. Analyse the banking systems and management and
5. Evaluate the Indian banking system prospects, challenges and reforms.

References:

1. Agarwal, O.P. (2019). *Modern Banking of India*, 3rd Ed., Himalaya Publishing House, Mumbai.
2. Clifford Gomez. (2011). *Banking and Finance – Theory, Law and Practice*, Prentice Hall of India, New Delhi.
3. Gordon, E. and K. Natarajan (2019). *Banking Theory, Law and Practice*, 27th Ed., Himalaya Publishing House, Mumbai.
4. Muraleedharan, D. (2014). *Modern Banking – Theory and Practice*, 2nd Ed., Prentice Hall of India, New Delhi.
5. Shekhar K.C. & Lekshmy Shekhar. (2013). *Banking Theory and Practice*, 21st Ed., Vikas Publsihing House Pvt., Ltd., New Delhi.
6. Srivatsava, P.K. (2020). *Banking – Theory and Practice*, 12th Ed., Himalaya Publishing House, Mumbai.
7. Sundharam, K.P.M. & Varshney P.N. (2014). *Banking Theory Law & Practice*, 20th Revised Ed., Sultan Chand and Sons Publishing House, New Delhi.

GEC-805: PRINCIPLES OF ECONOMETRICS

Course Description: This introductory course of econometrics starts with the two variable regression method. Then estimating the regression coefficients using OLS method in the case two variable and multiple regression models are explained. Hypothesis testing in the case of two variables and multiple regression models along with various types of functional forms of regression also explained. Then it explained the detection, consequences and remedial measures of relaxing the assumptions of classical regression model. This course ends with the use dummy variables in regression analysis.

Course Objectives: This course is an introductory nature of econometrics. In this course, a student can learn about econometric models with a focus on

1. Concept of two variable regression analysis
2. Estimation of two variable regression analysis
3. Multiple regression analysis
4. Relaxing assumptions of classical regression and
5. Dummy variable regression model

Course Syllabus

Unit-I: Introduction to Econometrics: Definition of Econometrics; Methodology of Econometrics; Types of Econometrics; The nature of regression analysis; The nature and sources of data for economic analysis. Two-variable regression anlaysis – Concept of Population Regression Function; Sample Regression Function.

Unit-II: Two Variable Regression Model - Estimation: The Method of Ordinary Least Squares (OLS); Assumptions of OLS; Standard Errors of Least Squares Estimates; Properties of Least Squares Estimators or The Gauss-Markov Theorem; The Coefficient of Determination; Classical Normal Linear Regression Model ; Two Variable Regression – Interval Estimation and Hypothesis Testing; Functional Forms of Regression Models.

Unit-III: Multiple Regression Analysis: The Problem of Estimation – Partial Regression Coefficients; Partial Correlation Coefficients; OLS and ML Estimation of Partial Regression Coefficients; The Multiple Coefficient of Determination and The Multiple Coefficient of Correlation; Specification Bias; More Functional Forms - The Cobb-Douglas Production Function; Polynomial Regression Models; The Problem of Inference – Hypothesis Testing in Multiple Regression; Hypothesis Testing about Individual Regression Coefficients; Testing the Overall Significance of the Sample Regression; Testing the Equality of Two Regression Coefficients; Restricted Least Squares; The Chow Test; Prediction with Multiple Regression; Testing the Functional Form of Regression.

Unit-IV: Relaxing Assumptions of Classical Regression: Multicollinearity – Consequences, Detection and Remedial Measures; Heteroscedastiticy - Consequences, Detection and Remedial Measures; Autocorrelation - Consequences, Detection and Remedial Measures; Econometric Model Specification Errors – Types, Consequences, Tests and Errors; Nested versus Non-Nested Models.

Unit-V: Dummy Variable Regression Model: The Nature of Dummy Variables; ANOVA Models – with Two Qualitative Variables; ANCOVA Models; Interaction Effects using Dummy Variables; Dummy Variables in Seasonal Analysis; Piecewise Linear Regression; Panel Data Regression Models; Technical Aspects of Dummy Variables – Interpretation, Semilogarithmic Regression, Heteroscedasticity, Autocorrelation.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the concept of two variable regression model
2. Estimate the two variable regression model
3. Analyse the multiple regression model
4. Examine the assumptions of classical linear regression and
5. Analyse the dummy variable regression model.

References:

1. Damodar N. Gujarati & Dawn C. Porter. (2009). *Basic Econometrics*, 5th Ed., Tata McGraw Hill Publications, New York.
2. James H. Stock & Mark W. Watson. (2017). *Introduction to Econometrics*, 3rd Ed., Pearson Education, Boston, USA.
3. Jeffrey M. Wooldridge. (2016). *Introductory Econometrics: A Modern Approach*, 6th Ed., Cengage Learning, USA.
4. R. Carter Hill, William E. Griffiths & Guay C. Lim. (2011). *Principles of Econometrics*, 4th Ed., John Wiley & Sons, Inc., USA.
5. Studenmund, A.H. (2017). *Using Econometrics: A Practical Guide*, 7th Ed., Pearson Education, Boston, USA.

GEC-807: RESEARCH METHODOLOGY

Course Description: This course gives an outline of how to conduct research. It explains how to select the research problem and what is the process of research with different types of research and svariables which a researcher has to understand while doing research. After selecting the research problem to execute it the researcher has to collect data with various data collection methods which are discussed elaborately. Then this course is focused on experimental research design mostly as most of the economic variables are falls in quantitative nature. Further, the higher level of multivariate analyses methods also explained. In the last step of research it provides guidelines to prepare a research report along with the current style of referencing.

Course Objectives:

This course is to make the student familiar with the tools of different research methods and designs with a focus on

1. Types of research and the process and problems of research
2. Different data collection methods
3. Various research designs
4. Multivariate analysis and
5. Research report and referencing styles

Course Syllabus

Unit-I: Introduction to Research Methodology: Types of Research; Types of Variables; Research Process; Research Problem; Literature Review; Ethics in Research.

Unit-II: Data Collection Methods: Collection of Primary Data – Observation, Interview, Questionnaire; Types of Scale; Scaling Techniques**.**

Unit-III: Research Design: Concepts of Research Design; Different Research Designs; Experimental Designs – Completely Randomised Design, Randomised Block Design, Latin Square Design, Factorial Design; Non-experimental Designs.

Unit-IV: Multivariate Analysis: Factor Analysis; Discriminant Analysis; Cluster Analysis; MANOVA

Unit-V: Report Writing, Referencing Style: Steps in Report Writing; Layout of the Research Report; Types of Reports; Mechanics of Writing a Research Report; APA Style of Referencing; Publication Ethics.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the types of research and process and problems of research
2. Analyse the different data collection methods
3. Evaluate various research methods and designs in detail
4. Examine the techniques of multivariate analysis and
5. Understand the report writing and referencing styles.

References:

1. Debbie L. Hahs-Vaughn. (2017): *Applied Multivariate Statistical Concepts*, Routledge Publishers, New York.
2. Kothari, C.R. & Gaurav Garg. (2019). *Research Methodology: Methods and Techniques*, 4th Ed., New Age International (P) Limited, New Delhi.
3. Panneerselvam, R. (2014). *Research Methodology*, 2nd Ed., Prentice Hall of India, New Delhi.
4. Singh, A.K. (2006). *Tests, Measurements and Research Methods in Behavioural Sciences*, 5th Ed., Bharati Bhawan (P & D), New Delhi.
5. Sherri L. Jackson. (2009). *Research Methods and Statistics: A Critical Thinking Approach*, 3rd Ed., Cengage Learning, U.S.A.

GEC-809: AGRICULTURAL ECONOMICS

Course Description: This course on agricultural economics starts with the importance of agriculture in economic development and the relationship between agriculture and environment. Then it explains various theories associated with the agriculture sector. Then it proceeds to the technical aspects of agriculture sector with a focus on production functions used in agriculture, measuring productivity and efficiency in agriculture sector. Then it considers one of the most important aspect in agriculture sector i.e. price determination of agriculture output and the issues of financing and marketing of agriculture produce in India. Lastly, it paid attention towards the problems of Indian agriculture sector and policies for agricultural development.

Course Objectives:

This course is to impart knowledge on agricultural economics with a view to

1. Study the relationship between agriculture and economic development and agriculture and environment
2. Theories of agricultural development
3. Production and farm management
4. Price determination in agriculture
5. Agricultural issues in India

Course Syllabus

Unit-I: Introduction to Agricultural Economics: Nature and Scope of Agricultural Economics; Agriculture and Economic Development; Agriculture and Environment; Terms of Trade between Agriculture and Industry.

Unit-II: Theories of Agricultural Development: Theories of Agriculture – Schultz's Theory of Transformation of Traditional Agriculture, Mills Theory of Agricultural Development, Boserup Model of Agricultural Development, Lewis Model of Economic Development, Ranis-Fei Model, Agricultural Trade Cycle of Cobweb Theory.

Unit-III: Production and Farm Management: The Economics of Production Function; Production Functions in Agriculture; Farm Organisation; Types of Farming; Size of the Farm and Productivity; Measures of Farm Efficiency; Cropping Pattern; Risk and Uncertainty in Farming; Trends in Agricultural Production and Productivity in India.

Unit-IV: Price Determination in Agriculture: The Costs of Production; Agriculture Price Policy in India; Commission on Agricultural Costs and Prices (CACP) in India; Minimum Support Prices (MSP) Determination; Agricultural Finance and Marketing in India.

Unit-V: Agricultural Issues in India: Land Reforms in India; Agricultural Inputs and Green Revolution in India; Agricultural Subsidies and Food Security in India; Crop Insurance; Agricultural Labour; WTO and Indian Agriculture; Policies for Agricultural Development in India.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the relationship between agriculture and economic development and agriculture and environment
2. Analyse the theories of agricultural development
3. Examine the production functions used in agriculture and farm efficiency and cropping pattern in India
4. Critically analyse the price determination of agricultural products and
5. Evaluate the problems and policies in agriculture sector in India.

References:

1. Andrew Barkley & Paul W. Barkley. (2013). *Principles of Agricultural Economics*, Routledge Publishers, New York.
2. Amarjit Singh, A.N. Sadhu & Jasbir Singh. (2019). *Fundamentals of Agricultural Economics*, 11th Ed., Himalaya Publishing House, Mumbai.
3. Bilgrami, S.A.R. (2018). *An Introduction to Agricultural Economics*, 2nd Ed., Himalaya Publishing House, Mumbai.
4. Gupta, P.K. (2012). *Agricultural Economics*, 2nd Ed. Vrinda Publcations Pvt. Ltd., New Delhi.
5. John B. Penson, Oral Capps, C. Parr Rosson & Richard T. Woodward. (2019). *Introduction to Agricultural Economics,* 6th Ed., Pearson Education Pvt. Ltd., New Delhi.
6. Puri, V.K. & S.K. Misra. (2018). *Indian Economy – Its Development Experience*, 36th Ed., Himalaya Publishing House, Mumbai.

GEC-811: INDUSTRIAL ECONOMICS

Course Description: This course gives us theoretical aspects of industrial economics and an overview of Indian industrial sector. It starts with the business motives behind the firms, types of various organizational forms and in which ways firms will combine. Then the firms demand forecasting methods, cost concepts, advertising and pricing strategies along with the theories of industrial location are discussed. Then how the firms face competition under different forms of markets and the measures, relationship and theories associated with market structure and innovation are explained. Measuring firm efficiency and decisions on investment made by the firms are clearly examined. Finally, regulation of Indian industries and various issues related to Indian industries are elaborately discussed.

Course Objectives:

The course is to give an idea on industrial economics to the student. This course explains

1. Different types of organizational forms
2. Theories of industries and location
3. Market structure
4. Industrial efficiency and investment decisions
5. Industrial policies and issues in India

Course Syllabus

Unit-I: Basics of Industrial Economics: Business Motives of Firms; Types of Organisational Forms; Diversification, Vertical Integration and Merger – Concepts, Motives and Measurements.

Unit-II: Theories of Industries and Location: Theory of Demand – Demand Forecasting Methods for a Product of a Firm; The Cost Theory and Optimum Size of the Firm; Break-even Analysis of the Firm; Advertising and Pricing Strategies of Firms; Industrial Location – Determinants, Theories of Industrial Location.

Unit-III: Market Structure: Forms of Markets – Perfect and Imperfect Competition; Market Concentration – Measurement and Monopoly Power; Market Structure and Innovation – Concepts and Relationship, Measurement of Innovation Activities, Theories of Technological Innovation – Mansfield's Model, Nordhaus Model, Barzel Model, Needham Model, Dasgupta and Stiglitz Models.

Unit-IV: Industrial Efficiency and Investment Decisions: Industrial Efficiency – Concept and Measurement, Measurement of Efficiency Levels, Efficiency Conditions in the Theory of Production, Investment Decisions of Industries – Types of Decisions, Preparation of Project, Methods of Project Evaluation.

Unit-V: Industrial Policies and Issues in India: Industrial Development in India; Industrial Polices – 1948, 1956, 1991; MRTP Act and Competition Act; Companies Act 2013, Public Sector in India; The Disinvestment Program in India; Major Industries in India; Small-scale Industries in India; Industrial Sickness in India; Industrial Finance in India; Industrial Disputes in India.

Learning Outcomes:

After completing this course, the student should be able to

1. Understand the different types of organizational forms
2. Analyse the theories of industries, pricing strategies of firms and industrial location
3. Examine the market structure and the theories of technological innovation
4. Evaluate the productivity and efficiency measures of industries and
5. Critically analyse the polices and issues of Indian industrial sector.

References:

1. Barthwal, R.R. (2010). *Industrial Economics – An Introductory Textbook*, 3rd Ed. New Age International (P) Limited, New Delhi.
2. Cabral, Luis M.B. (2018). *Introduction to Industrial Organisation*, 2nd Ed., Prentice Hall Of India, New Delhi.
3. Dennis W. Carlton & Jeffrey M. Perloff. (2005). Modern Industrial Organisation, 4th Ed., Pearson Education, New York.
4. Jeffrey Church and Roger Ware. (2000). *Industrial Organisation: A Strategic Approach*, The McGraw-Hill Companies Inc., U.S.A.
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6. Puri, V.K. & S.K. Misra. (2018). *Indian Economy – Its Development Experience*, 36th Ed., Himalaya Publishing House, Mumbai.
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OPEN ELECTIVE

GOE-853: STRESS MANAGEMENT

Course Description: Stress is a fact of life, wherever one is and whatever they are doing. One cannot avoid stress, but can learn to manage it so it doesn't manage them. That is why, it's important to know oneself and carefully consider the causes of stress. The key is to develop an awareness of how one interprets, and reacts to, circumstances. This awareness will help one develop coping techniques for managing stress. This paper focuses on both the theoretical aspects and practical methods to manage stress. This is an ability enhancing course.

Course Objectives:

To introduce to students to the concept of stress, its manifestations in different situations and an effective management with a practical orientation. This course explain about

1. Sources and symptoms of stress
2. Moderators of stress and health behaviour
3. Organizational stress
4. Stress management interventions with a focus on problem solving and time management
5. Stress management interventions with a focus on problem physical and psychological relaxation methods

Course Syllabus

UNIT-I: Learning about sources of stress and its symptoms: Nature of stress- various sources of stress: environmental, social, physiological and psychological; Symptoms of stress - emotional response, physiological & behavioral; Post Traumatic Stress Disorder.

UNIT-II: Moderators of stress and health behavior, - personality; Personal characteristics contributing to stress- Role of emotions and Cognitive distortions; Social Support- Hardiness, Psycho-social support, Adaptive and Maladaptive Behaviours- Defense mechanisms and Coping styles.

UNIT-III: Organizational stress: Concept- different perspectives, Eustress; Causes of job stress**:** organizational structure and change, properties of work and work settings, job role, shift work. Consequences of Job Stress: Job Satisfaction, Performance, absenteeism; Burnout and Psychological First-aid.

UNIT-IV: Stress management interventions I: Problem Solving and Time management; Cognitive Approaches- Cognitive restructuring, Conflict Resolution, Decision making, Optimal Functioning, Resilience building, Nutrition and Other Lifestyle issues.

UNIT-V: Stress management interventions II: Physical and psychological relaxation methods- Yoga, Meditation, Vipassana, and other Mindfulness relaxation techniques.

Course Outcomes:

After this course, the students should be able to

1. Understand the sources and symptoms of stress
2. Analyse moderators of stress and health behaviour
3. Examine the organization stress with a particular focus on job stress, satisfaction and performance
4. Evaluate the stress management interventions with a focus on problem solving and time management and
5. Evaluate the stress management interventions with a focus on problem physical and psychological relaxation methods

References:

1. Matteson, M.T. & Ivancevich, J.M. (1987). *Controlling Work Stress: Effective Human Resources and Management Strategies*, Josey Bass, San Francisco.
2. Pestonjee, D.M. (1992). *Stress and Coping*, Sage Publications, New Delhi.
3. Ross, R.R. & Altmair, E.M. (1994). *Interventions in Occupational Stress*, Sage Publications, New Delhi.
4. Srivastava, A.K. (1999). *Management of Occupational Stress: Theories and Practice*, Gyan Publishing House, New Delhi.

OPEN ELECTIVE

GOE-855: DISASTER MANAGEMENT

Course Description: This course introduces to the basic concepts of disaster management, while analysing the culture of preparedness and quick response promoted by the institutions at different levels in India, through various policies.

Course Objectives:

This course is focused on disaster management. It explains about

1. Concepts and types of disasters
2. Classification of disasters
3. Disaster management cycle
4. Disaster management in India and
5. Disaster management practices

Course Syllabus

Unit-I: Understanding Disaster: Concepts and Definition of Disaster; Hazard, Vulnerability, Risk and Capacity; Disaster and Development.

Unit-II: Classification of Disasters: Geological Disasters: Earthquakes, Landslides, Tsunami; Hydro-Meteorological Disasters: Floods, Cyclones, Drought, Thunderstorms, Hailstorms; Biological Disasters: Epidemics, Pest attacks, Cattle epidemics, Food poisoning; Chemical, Industrial and Nuclear Disasters; Accidental Disasters: Forest fires, Urban fires,Mine flooding, Oil Spill, Building collapse, serial bomb blasts, electrical disasters and fire.

Unit-III: Disaster Management Cycle: Stages in Disaster Management; The Disaster Cycle – The Disaster Event, Disaster Response, Recovery and Development; Risk Reduction – Mitigation and Preparedness - Total Disaster Risk Management Approach (TDRMA) - Long term mitigation and short term preparedness, Paradigm Shift in Disaster Management; Response Mechanism in India - National Disaster Response Force (NDRF).

Unit-IV: Disaster Management in India: Hazard and Vulnerability Profile of India; Disaster Management Policy in India - National Policy on Disaster Management, The Disaster Management Act of 2005; Disaster Response - Central, State, District and Local Administration.

Unit-V: Disaster Management Practices: Disaster manual; Survival skills; Alternative communication skills; Safe construction practices; Role of International Agencies, NGOs, Community Based Organisation, Community, Media, Family and Media.

Course Outcomes:

Students who take this course would be able to

1. Understand the concepts and types of disasters
2. Analyse the classification of disasters based on different sources
3. Examine the different stages in the disaster management cycle
4. Evaluate the vulnerability profile of India and the government policies and
5. Examine the disaster management practices and the role of different stakeholders

References:

1. Gupta, Harsh K. (2003). *Disaster Management*. Hyderabad: University Press India Private Limited.
2. GoI-UNDP (2009-2012). Disaster Management in India. Prepared under GoI-UNDP Disaster Risk Reduction Programme. Ministry of Home Affairs, Government of India. Web link http://www.undp.org/content/dam/india/docs/disaster_management_in_india.pdf
3. NIDM Publications, Web link https://nidm.gov.in/books.asp

SEMESTER - IV
GEC-802: INTERNATIONAL ECONOMICS

Course Description: This course is aimed to provide an in depth knowledge on international economic theories and policies. This course starts with explaining the classical and modern theories of international trade. Then it moves to discuss the commerce policy of international trade of tariffs and non-tariff barriers and various types of economic integration. Then it discusses the open economy foreign trade policy with respect to balance of payments and foreign exchange rates and their theories. It finally touches upon the issues relating to international economic problems and organisations involved in international trade to solve these problems.

Course Objectives:

This course gives an outline of international economics to the students. This course explains about

1. Traditional and modern theories of international trade
2. Commercial policy of tariffs and non-tariff barriers and economic integration
3. Balance of payments and open economy macroeconomic policies
4. Foreign exchange markets and exchange rate systems and
5. International economic problems and organisations

Course Syllabus

Unit-I: Theory of International Trade: Subject matter of International Economics; International Trade and Economic Development; Theory of Absolute Advantage; Theory of Comparative Advantage; Opportunity Cost Theory; Standard Theory of International Trade - Demand and Supply, Offer Curves and the Terms of Trade; Factor Endowments Theories – Heckscher-Ohlin, Samuelson, Stopler-Samuelson, Rybczynski; New Trade Theories – Intra-Industry Trade Model, Technological Gap Model, Product Cycle Model and Theory of Unequal Exchange.

Unit-II: Commercial Policy: Tariffs – Partial and General Equilibrium Models, Theory of Effective Protection, Optimum Tariff; Nontariff Trade Barriers – Import Quotas, Voluntary Export Restraints, International Cartels, Dumping, Export Subsidies; Protectionism; Economic Integration – Customs Union, Free Trade Areas; Import Substitution vs. Export Promotion Policies; Optimum Currency Areas.

Unit-III: Balance of Payments: Balance of Payments – Structure, Disequilibrium in Balance of Payments – Causes and Measures, Adjustment Mechanisms - The Price Adjustment Mechanism and Income Adjustment Mechanism; Open Economy Macroeconomic Adjustment Policies - Expenditure Change and Expenditure Switching Policies, Monetary and Fiscal Policies, Prices and Output in Open Economy.

Unit-IV: Foreign Exchange: Foreign Exchange Markets – Functions, Spot and Forward Rates, Currency Swaps, Futures and Options, Foreign Exchange Risks – Hedging and Speculation, Interest Arbitrage; Theories of Foreign Exchange Rate Determination – Mint Parity Theory, Purchasing Power Parity Theory, Balance of Payments Theory, Monetary Approach,

Portfolio Balance Model; Foreign Exchange Rate Policy - Flexible vs. Fixed Exchange Rates, Exchange Rate Systems – Adjustable Peg and Floating.

Unit-V: International Economic Problems and Organisations: Multi-National Corporations and Capital Flow; Financial Globalisation – Opportunity and Crisis; Developing Countries – Growth, Crisis and Reform; International Lending and Financial Crisis; International Monetary System - IMF, World Bank and WTO in International Trade; European Union and Euro Currency; BRICS and the New Development Bank; SAARC.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the traditional and modern theories of international trade
2. Analyse the commercial policy of tariffs and non-tariff barriers and economic integration
3. Evaluate the balance of payments and open economy macroeconomic policies
4. Examine the Foreign exchange markets and exchange rate systems and
5. Critically evaluate the international economic problems and the role of international organisations

References:

1. Dennis R. Appelyard & Alfred J. Field Jr. (2014). *International Economics*, 8th Ed., McGraw-Hill/Irwin Publishers, New York.
2. James Gerber. (2018). *International Economics*, 7th Ed., Pearson Education Limtied, Harlow, England.
3. Paul R. Krugman, Maurice Obstfeld & Marc J. Melitz. (2012). *International Economics: Theory and Policy*, 9th Ed., Addison-Wesley Publishers, U.S.A.
4. Ramon P. Degennaro. (2017). *International Economic Institutions: Globalism vs. Nationalism*, The Great Courses, Virginia, U.S.A.
5. Salvatore, Dominick. (2013). *International Economics*, 11th Ed. John Wiley & Sons Inc., U.S.A.
6. Thomas A. Pugel. (2016). *International Economics*, 16th Ed., McGraw-Hill Education, New York.

GEC-804: FINANCIAL INSTITUTIONS AND MARKETS

Course Description: This course gives an outline of financial system of an economy. In the first unit it starts with understanding the relationship between financial system and economy and the structure of financial system. The remaining four units are allocated for financial markets, financial services, financial institutions and regulating bodies. The second unit explains different types of financial markets and its instruments such as primary and secondary markets. Financial services such as investment banking, merchant banking, factoring and forfaiting are discussed in the third unit. Fourth unit deals with the financial institutions such as SIDBI, NABARD, UTI, insurance etc. The last unit focused on regulating bodies of financial institutions and explained the laws and regulations put forth by them.

Course Objectives: This course describes about the Indian financial system. It aims to provide an insight to the students on

1. The structure and functions of financial system and risk management in financial institutions
2. Financial markets and instruments
3. Different types of financial services
4. Different types of financial institutions and
5. Regulating bodies of money market, capital market and insurance

Course Syllabus

Unit-I: Introduction to Financial System: Financial System – Structure and Functions; The Financial System and the Economy; Term Structure and Interest Rates; Risk Management in Financial Institutions – Credit Risk and Interest Rate Risk; Financial Market Efficiency.

Unit-II: Financial Markets and Instruments: The Money Market – Functions, Instruments – Treasury Bills, Commercial Paper, Commercial Bills, Certificates of Deposit, Call Money Market and Money Market Derivatives; The Capital Market – Functions; The Primary Market – Book Building, Primary Issues, Mutual Funds, Resource Mobilisation from International Markets; The Secondary Market – Stock Exchanges – Securities, Risk Management, Tranding Arrangements, Stock Market Index, NSE, OTCEI, Regional Stock Exchanges, Market Making System; The Derivatives Market – Types of Financial Derivatives, Forwards and Futures, Futures Trading Strategies, Options, Options Trading Strategies, Derivatives Market and Trading in India; The Debt Market – The Private Corporate Debt Market, The Public Sector Undertaking Bond Market, The Government Securities Market; New Financial Instruments.

Unit-III: Financial Services: Investment Banking – Function, Types, Investment Banking Services, Merchant Banking Services, Pre-issue Obligations, Post-issue Obligations; Depositories and Custodians; Credit Rating; Factoring and Forfaiting; Housing Finance; Leasing and Hire Purchase; Microfinance.

Unit-IV: Financial Institutions: Development Financial Institutions – IFCI, SIDBI, IDFC, EXIM, NABARD; Banking and Non-Banking Institutions – Functions of Bank, Scheduled Commercial Banks, Investment Banks, Cooperative Banking, Stress Testing in Banks, Non-Banking Financial Companies; Mutual Funds – Equity Funds, Debt Funds, Risk and Return

in Mutual Funds and UTI; Insurance – Insurance Intermediaries, Risk Management, General Insurance, Life Insurance, Health Insurance, Reinsurance, Micro Insurance.

Unit-V: Financial Regulating Bodies: Regulation of Money Market – RBI; Regulation of the Capital Market – SEBI, Reserve Bank of India; Reforms in Money and Capital Markets in India; SEBI Guidelines relating to Mutual Funds, Merchant Banks, Credit Rating Agencies, Securities Markets; Insurance Regulation in India – IRDAI; Regulations of Depositories and Custodians – NSDL and CDSL; Regulations of Credit Rating Agencies in India – CRISIL Limited, ICRA Limited, CARE; Regulations of Housing Finance in India – NHB; Regulations for Microfinance in India.

Learning Outcomes:

After completing this course, the student should be able to

1. Understand the structure and functions of financial system and risk management in financial institutions
2. Analyse the various financial markets and instruments
3. Examine the different types of financial services
4. Analyse the different types of financial institutions and
5. Evaluate the role of regulating bodies in Indian financial system.

References:

1. Anthony Saunders & Marcia Millon Cornett. (2019). *Financial Markets and Institutions*, 6th Ed., McGraw-Hill Education, New Delhi.
2. Bharati V. Pathak. (2018). *The Indian Financial System – Markets, Institutions and Services*, 5th Ed., Pearson Education Limited, New Delhi.
3. Bhole, L.M. & Jitendra Mahakud. (2017). *Financial Institutions and Markets*, 6th Ed., McGraw-Hill Education, New Delhi.
4. Frederic S. Mishkin & Stanley G. Eakins. (2012). *Financial Markets and Institutions*, 7th Ed., Pearson Education, U.S.A.
5. Hubbard R. Glenn & Anthony Patrick O'Brien. (2012). *Money, Banking and the Financial System*, 1st Ed., Pearson Education, U.S.A.
6. Khan, M.Y. (2019). *Indian Financial System*, 11th Ed., McGraw-Hill Education, New Delhi.
7. Machiraju, H.R. (2019). *Indian Financial System*, 5th Ed., Vikas Publishing House Pvt. Ltd., New Delhi.
8. Vasant Desai. (2019). *The Indian Financial System and Development: Innovating Success*, 5th Ed., Himalaya Publishing House, Mumbai.

GEC-806: ADVANCED ECONOMETRICS

Course Description: This advanced econometrics course starts with non-linear regression models such as logit, tobit and probit models in the first unit. In the second unit it lays emphasis on panel data regression models and focused on fixed effects and random effects models. The third unit deals with dynamic econometric models such as distributed lag models and autoregressive models. Fourth unit explains simultaneous equation models with a focus on identification problem. The last unit is on time series and forecasting techniques. The main methods in this unit are stationarity tests for time series data and time series models of ARMA, ARIMA, ARCH and GARCH models.

Course Objectives:

This course aims to enhance the skills of students in econometrics at an advanced level. The aim of this course is to make the student acquaint to use

1. Non-linear regression models
2. Panel data regression models
3. Dynamic econometric models
4. Simultaneous equation models
5. Time series models and forecasting techniques

Course Syllabus

Unit-I: Non-Linear Regression Models: Estimation of Non-linear Regression Models – Logit Model; Probit Model; Tobit Model; The Poisson Regression Model; Ordinal Logit and Probit Models; Multinomial Logit and Probit Models; Duration Models.

Unit-II: Panel Data Regression Models: Nature of Panel Data; Pooled OLS Regression Model; The Fixed Effect Least-Squares Dummy Variable (LSDV) Model; The Random Effects Model (REM).

Unit-III: Dynamic Econometric Models: Distributed –Lag Models – Estimation, The Koyck Approach (Adaptive Expectations and Partial Adjustment Models), The Almon or Polynomial Distributed Lag Models; Autoregressive Models – Estimation, Instrumental Variables (IV) Method, Detecting Autocorrelation in Autoregressive Models; Causality in Economics – The Granger Causality Test.

Unit-IV: Simultaneous Equation Models: Simultaneous Equation Models and Methods – Nature and Bias, Recursive Models and Ordinary Least Squarres, The Method of Indirect Least Squares (ILS), The Method of Two-Stage Least Squares (2SLS); The Identification Problem – Underidentification, Exactidentification, Overidentification, Rules for Identification, Test of Simultaneity and Exogeneity

Unit-V: Time Series Models and Forecasting: Time Series Econometrics – Stochastic Processes, Unit Root Stochastic Process, Trend Stationary (TS) and Difference Stationary (DS) Stochastic Processes, Integrated Stochastic Processes, Spurious Regression, Tests of Stationarity, The Unit Root Test, Transforming Nonstationary Time Series, Cointegration; Forecasting – Approaches to Economic Forecasting, AR, MA and ARIMA Modelling of

Time Series Data, The Box-Jenkings Methodology, Estimation of the ARIMA Model, Vector Autoregression (VAR) Model, The ARCH and GARCH Models.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the non-linear regression models
2. Apply the panel data regression models
3. Demonstrate the dynamic econometric models
4. Understand the simultaneous equation models and
5. Apply the time series models and forecasting techniques to real time data

References:

1. Damodar N. Gujarati & Dawn C. Porter. (2009). *Basic Econometrics*, 5th Ed., Tata McGraw Hill Publications, New York.
2. James H. Stock & Mark W. Watson. (2017). *Introduction to Econometrics*, 3rd Ed., Pearson Education, Boston, USA.
3. Jeffrey M. Wooldridge. (2010). *Econometric Analysis of Cross Section and Panel Data*, 2nd Ed., The MIT Press, London.
4. Jeffrey M. Wooldridge. (2016). *Introductory Econometrics: A Modern Approach*, 6th Ed., Cengage Learning, USA.
5. R. Carter Hill, William E. Griffiths & Guay C. Lim. (2011). *Principles of Econometrics*, 4th Ed., John Wiley & Sons, Inc., USA.
6. Studenmund, A.H. (2017). *Using Econometrics: A Practical Guide*, 7th Ed., Pearson Education, Boston, USA.
7. William H. Greene. (2018). *Econometric Analysis*, 8th Ed., Pearson Education, New York.

GEC-808: ENVIRONMENTAL ECONOMICS

Course Description: The environmental economics course consists of five units. First unit explains about economy and environment interaction and efficiency criteria and welfare measures also covered. The second unit deals with the problem of externality and property rights. It focused on Coase theorem and common property resources. The third unit is devoted to environmental valuation and accounting methods. It specifically explains various methods such as travel cost method, hedonic pricing method, contingent valuation method etc. to estimate the benefits and costs of environment. The fourth unit covers topics on resource economics. In this unit focus is on how efficiently renewable and nonrenewable resources are allocated in the market along with setting standards for air and water quality. The last unit is on global environmental issues such as global pollution, climate change and sustainable development. Solutions to environmental problems from different aspects are also offered.

Course Objectives:

The aim of this course is to make the student understand the ecosystem and its interaction with economics. This course describes

1. Economy-environment interaction
2. The theory of externality and market failure
3. Environmental valuation and accounting
4. Different types of pollution and their causes and solutions
5. Environmental management and policy

Course Syllabus

Unit-I: Economy-Environment Interaction: Economics and the Environment – Material Balance Model; Understanding Environmental Damage – Causes, Sources and Scope; Basic Tools of Modelling the Market Process – Market Supply and Demand, Market Equilibrium; Efficiency Criteria; Welfare Measures; Economic Development and Environment.

Unit-II: The Theory of Externality and Market Failure: Environmental Problems – Market Failure, Externalities, Public Goods; Property Rights – Coase Theorem, Common Property Resources.

Unit-III: Environmental Valuation and Accounting: Total Economic Value; Valuation of Environmental Benefits – Conceptual Issues, User versus Existence Value; Approaches to Measuring Environmental Benefits – Physical Linkage Approach – Damage Function Method, Behavioural Linkage Approach – Contingent Valuation Method, Average Expenditure Method, Travel Cost Method, Hedonic Pricing Method; Valuation of Environmental Costs – Explicit and Implicit Environmental Costs; Estimating Methods for Measuring Explicit Costs; Cost Classifications; Benefit-Cost Analysis in Environmental Decision Making; National Income and Environmental Accounting.

Unit-IV: Resource Economics: Depletable Resource Allocation – Efficient Intertemporal Allocations, Market Allocations; Recyclable Resources – An Efficient Allocation of Recyclable Resources, Factors Mitigating Resource Scarcity, Market Imperfections;

Allocation of Resources – Water, Land, Forests and Fisheries; Economics of Pollution Control; Air Quality – Standard Setting Process, Controlling Mobile Sources, Controlling Stationery Sources, Water Quality – Standard Setting Process, Controlling Point and Nonpoint Sources; Managing Solid Waste.

Unit-V: Environmental Management and Policy: Solutions to Environmental Problems – The Command-and-Control Approach, Allocative Efficiency; Economic Solutions to Environmental Problems – The Market Approach – Pollution Charges, Environmental Subsidies, Deposit/Refund Systems, Pollution Permit Trading Systems; Tools for Environmental Planning – Risk Assessment, Risk Management; Global Air Quality – Policies for Ozone Depletion and Climate Change; Population and Environment; Sustainable Development – International Environmental Agreements; Sustainable Approaches – Industrial Ecology and Pollution Prevention; Environmental Legislations in India.

Learning Outcomes:

After completing this course, the student should be able to

1. Understand the economy-environment interaction
2. Analyse the theory of externality and market failure
3. Examine the environmental valuation and accounting measures
4. Analyse different types of pollutions and their causes and effective measure to control them
5. Evaluate the environment management and policy in India

References:

1. David A. Anderson. (2010). *Environmental Economics and Natural Resource Management*, 3rd Ed., Routledge Publishers, New York.
2. Field, Barry C., & Field, Martha K. (2017). *Environmental Economics: An Introduction*, 7th Ed., McGraw-Hill Education, New York.
3. Harris, Jonathan M. Roach Brian. (2018). *Environmental and Natural Resource Economics: A Contemporary Approach*, 4th Ed., Routledge Publishers, New York.
4. Rabindra N. Bhattacharya. (2002). *Environmental Economics: An Indian Perspective*, Oxford University Press, New Delhi.
5. Scott J. Callan & Janet M. Thomas. (2013). *Environmental Economics & Management: Theory, Policy and Applictions*, 6th Ed., South-Western Cengage Learning, U.S.A.
6. Singh, Katar & Anil Shishodiya. (2007). *Environmental Economics: Theory and Applications*, Sage Publications, New Delhi.
7. Tom Tietenberg & Lynne Lewis. (2018). *Environmental and Natural Resource Economics*, 11th Ed., Routledge Publishers, New York.

GEC-810: ECONOMICS OF INSURANCE

Course Description: This course on insurance starts with defining risk and insurance and observing types and characteristics of risk and insurance. In the second unit risk management methods are clearly explained along with the concepts of enterprise risk management, underwriting process and reinsurance. The third unit is completely allotted for life insurance concepts. It explains about the various plans of life insurance, health insurance and Life Insurance Corporation of India. The fourth unit is on non-life insurance which covers general insurance, fire insurance, marine insurance and other types of non-life insurance areas along with General Insurance Corporation of India. The last unit is on insurance legislation and regulation in India. It explains how insurance industry in India evolved and recent trends in Indian insurance sector.

Course Objectives:

This course outcome is to create awareness on economics of insurance. It deals with

1. Types of risk and insurance and techniques for managing risk
2. Process and tools of risk management
3. Basics of life insurance and health insurance products
4. Basics of non-life insurance products
5. Insurance legislation and regulation in India

Course Syllabus

Unit-I: Introduction to Risk and Insurance: Definition and Classification of Risk; Peril and Hazard; Major Personal Risks and Commercial Risks; Burden of Risk on Society; Techniques for Managing Risk – Risk Control and Risk Financing; Basic Characteristics of Insurance; Characteristics of an Ideally Insurable Risk; Types of Insurance; Benefits and Costs of Insurance to Society; Insurance and Economy.

Unit-II: Risk Management: Meaning and Objectives of Risk Management; Process of Risk Management; Enterprise Risk Management; Insurance Market Dynamics; Loss Forecasting; Financial Analysis in Risk Management Decision Making; Risk Management Tools; Functions and Organisation of Insurers; Product Design and Development; Underwriting; Insurance Pricing; Marketing of Insurance Products; Claims Management; Insurance Intermediaries; Financial Aspects of Insurance Companies; Reinsurance; Insurance Contracts and Provisions; Insurance Laws – Primary and Special Purpose.

Unit-III: Basics of Life Insurance: Introduction to Life Insurance; Life Insurance - Contracts and Policy Provisions, Products, Underwriting and Rating, Claims Management, Group Insurance, Mortality Tables, Premium and Bonus; Life Insurance Corporation of India; Health Insurance.

Unit-IV: Basics of Non-Life Insurance: Introduction to General Insurance; Fire Insurance; Marine Insurance; Automobile Insurance; Rural Insurance; Social Insurance; Project and Engineering Insurance; Liability Insurance; General Insurance Corporation of India.

Unit-V: Insurance Legislation and Regulation in India: Insurance Industry in India; Insurance Act, 1938; Insurance Regulation and Development Authority of India; Life Insurance Council; General Insurance Council; Protection of Policy Holders Interest; Insurance Ombudsman Rules, 2017; Privatisation of Insurance Business in India; Recent Trends in Indian Insurance Industry.

Course Outcomes:

After completing this course, the student should be able to

1. Understand the types of risk and insurance and techniques for managing risk
2. Analyse the process and tools of risk management
3. Examine the basics of life insurance products
4. Analyse the basics of non-life insurance products and
5. Evaluate the legislation and regulation of insurance industry in India

References:

1. Emmett J. Vaughan & Therese M. Vaughan. (2008). *Fundamentals of Risk and Insurance*, 10th Ed., John Wiley & Sons, Inc., U.S.A.
2. George E. Rejda & Michael J. McNamara. (2017). *Principles of Risk Management and Insurance*, 13th Ed., Pearson Education Limited, London.
3. Gupta, P.K. (2019). *Insurance and Risk Management*, 2nd Ed., Himalaya Publishing House, Mumbai.
4. Mark, S. Dorfman. (2015). *Introduction to Risk Management and Insurance*, 10th Ed., Pearson Education Limited, New Delhi.
5. Mishra, M.N. & S.B. Mishra. (2016). *Insurance: Principles and Practice*, 22nd Ed., S. Chand Publishing, New Delhi.
6. Periasamy, P. (2019). *Principles and Practice of Insurance*, 2nd Ed., Himalaya Publishing House, Mumbai.
7. Swarup C. Sahu & Suresh C. Das. (2020). *Insurance Management: Text and Cases*, 2nd Ed., Himalaya Publishing House, Mumbai.