

*Placed at the meeting of
Academic Council
held on 26.03.2018*

APPENDIX - BJ
MADURAI KAMARAJ UNIVERSITY
(University with Potential for Excellence)

B.Sc. RURAL DEVELOPMENT SCIENCE (SEMESTER)
REVISED SYLLABUS
(with effect from the academic year 2018-19 onwards)

1. Introduction of the Programme

Rural Development Science is the interdisciplinary and multi-dimensional discipline. It includes the subjects of Natural Science, Agricultural and Animal Husbandry & Home Science with Social Sciences in the context of Rural Development.

2. Eligibility for Admission

Candidate should have passed the Higher Secondary Examination conducted by the Board of Higher Secondary Education, Government of Tamilnadu or any other Examination accepted by the Syndicate as equivalent thereto.

Duration of the Course is Three Years (Six Semesters). Each academic year shall comprise two semesters viz., Odd and Even semesters. Odd semester shall be from June to November and even semester shall be from December to April. There shall be not less than 90 working days which shall comprise 450 teaching hours for each semester.

2.1. Duration of the Programme : 3 Years

2.2. Medium of Instruction : English.

3. Objectives of the Programme

- To impart the students about Rural Development along with natural and agricultural sciences.
- To make the students to have exposure and field visit in Rural Development.
- To make the students to equip on self employment.

4. Outcome of the Programme

- Professionally trained personnel in Rural Development.
- Chances for getting employment in both public and private sector.
- Opportunities to students to start an NGO/Tiny/Cottage Industries.

5. Core Subject Papers

1.	Rural Society in India
2.	Introduction to Animal Husbandry
3.	Rural Economy & Cooperation
4.	Computer Applications in Rural Development
5.	Demography
6.	Commercial Horticulture
7.	Rural Industries and Management
8.	Agronomy
9.	General Psychology
10.	Social Problems and Rural Education
11.	Social Research Methodology
12.	Human Rights
13.	Dynamics of Rural Development
14.	NGOs & SHGs for Rural Development
15.	Family and Social Welfare
16.	Panchayat-Raj Administration

6. Subject Elective Paper

1.	Fundamentals of Life Science
2.	Applied Botany-2
3.	Plant Pathology
4.	Crop Entomology
5.	Dairy Science
6.	Poultry Science

Compulsory Common Electives

1.	Environmental Studies
2.	Value Education

7. Non Major Electives

1.	Introduction to Energy Science
2.	Non Major Elective (To be chosen from Non RDS Department) Industrial Chemistry

3.	<i>Introduction to Rural Development (For Non RDS Students)</i>
4.	Live Stock Production and Management
5.	Non Major Elective (To be chosen from Non RDS Department) Drugs and Cosmetics
6.	<i>Introduction to Agriculture (For Non RDS Students)</i>
7.	Rural Entrepreneurship Development
8.	Local Water Resource Management
9.	Extension Activities
10.	Plantation and Medicinal Crops
11.	Rural Development Project Planning & Management

8. UNITIZATION:

Each Subject is segregated into five units with each unit consisting of equal distribution of major concepts.

9. PATTERN OF SEMESTER EXAM:

Examination will be conducted at the end of each semester. Each Semester has two patterns of examination namely Internal (25 marks) and external (75marks).

10. SCHEME FOR INTERNAL ASSESSMENT:

The Internal assessment will be as follows:

Test	=	10Marks (Average of the best two tests)
Assignment	=	5 marks
Seminar / Group Discussion	=	5 marks
Peer- team – teaching	=	5 marks
Total	=	25 marks

11. EXTERNAL EXAM:

External Examination will be conducted as semester exams as per University norms with common question paper for all affiliated colleges.

12. QUESTION PAPER PATTERN:

The existing pattern of Question paper will be as follows:

Time: 3 hrs

Max. Marks: 75

Section A: (10 X1 = 10 marks)

Question No. 1 to 10 (Multiple Choice)

- 1) Two Questions from each unit.
- 2) Four Choices in each question
- 3) No ‘None of These’ Choice should be given.

Section B: (5 x 7 = 35 marks)

Answer all the questions choosing either (a) or (b)

Answers not exceeding two pages

(One question from each unit)

11 (a) or 11 (b)
12 (a) or 12 (b)
13 (a) or 13 (b)
14 (a) or 14 (b)
15 (a) or 15 (b)

Section C: (3x10=30 marks)

Answer not exceeding four pages

Answer any three out of five (one question from each unit)

Question 16 – 20

13. SCHEME FOR EVALUATION:

External Evaluation is done at the University level by Central Evaluation Procedure.

Evaluation Pattern: External 75 Marks Internal 25 Marks

Internal Assessment

Two Tests (2 X 10 = 20), Assignment (5 Marks)

End of Semester Exam (External)

Question Paper Patter:

Part A: Descriptive Type- 100 words each (5 X 6 = 30)

Part B- Descriptive and Analytical Type- 250 words each (3 X 15 = 45)

14. PASSING MINIMUM:

Passing Minimum for the UG Course is 40% of marks in Internal and External Separately.

Theory: Internal and External marks will be 25:75

1. 40% Mark is the pass minimum (Internal + External)
2. No separate pass minimum for Internal.
3. 27 marks out of 75 is the pass minimum for the External.

Practical: Internal and External marks will be 40:60

1. 40% Mark is the pass minimum (Internal + External)
2. No separate pass minimum for Internal.
3. 24 marks out of 60 is the pass minimum for the External.

14.1. CLASSIFICATION

S. No	Range of CCPA	Class
1	40 & above but below 50	III
2	50 & above but below 60	II
3	60 & Above	I

15. MODEL QUESTIONS:

16. TEACHING METHODOLOGY

The success of a lesson depends on the methodology that the teacher adopts. Teaching Rural Development Science shall be done through the methods like cooperative learning, project, experimental learning, interdisciplinary approach, and constructivism etc. Methodology shall consist of stimulation of students' interest, presentation of teaching material, team formation and activities' determination, conduction of activities and discussion and assessment. For the sake of simplicity and easy understand, the methods like problem solving method, discussion method, demonstration method, role playing method, lecture method, peer team teaching method and case study method shall be adopted. The use of ICT shall be co-opted for the visual presentation of the lessons.

17. TEXT BOOKS

The list of text books are given at the end of the syllabus of each paper / course.

18. REFERENCE BOOKS

The list of reference books is given at the end of the syllabus of each paper / course.

19. Retotaling and Revaluation Provision

Students shall be provided the facility of applying for retotaling the marks within 15 days after the publication of results on payment of a minimum fee fixed by the University and they shall be allowed to apply for revaluation of their papers within 15 days after the publication of results on payment of a fee to be fixed by the University.

20. Transitory Provision (3+3)

Syllabus revision shall be done once in 3 years and afterwards 3 years shall be under transitory provision.

First Year

Subjects	Course	Hours	Credit
First Semester			
Tamil/Hindi/French	1	6	3
English	1	6	3
Core Subject			
Rural Society in India	1	4	4
Introduction to Animal Husbandry	1	4	4
Subject Elective			
Fundamentals of Life Science	1	4	4
Non Major Elective			
Introduction to Energy Science	1	2	2
Non Major Elective (To be chosen from Non RDS Department) Industrial Chemistry	1	2	2
<i>Introduction to Rural Development (For Non RDS Students)</i>			
Practical – 1	0	2	0
Practical – 2	0	2	0
Total	7	30	20
Second Semester	Course	Hours	Credit
Tamil/Hindi/French	1	6	3
English	1	6	3
Core Subject			
Rural Economy & Cooperation	1	4	4
Computer Applications in Rural Development	1	4	4
Subject Elective			
Applied Botany-2	1	4	4
Non Major Elective			
Live Stock Production and Management	1	2	2

Non Major Elective (To be chosen from Non RDS Department) Drugs and Cosmetics	1	2	2
<i>Introduction to Agriculture (For Non RDS Students)</i>			
Practical – 1	1	2	1
Practical – 2	1	2	1
Total	9	30	23

Second Year

Third Semester	Course	Hours	Credit
Core Subject			
Demography	1	4	3
Commercial Horticulture	1	4	3
Rural Industries and Management	1	4	4
Subject Elective			
Plant Pathology	1	4	4
Non Major Elective			
Rural Entrepreneurship Development	1	4	4
Practical – 3	0	6	0
Practical – 4	0	2	0
Practical – 5	0	2	0
Total	5	30	18

Fourth Semester	Course	Hours	Credit
Core Subject			
Agronomy	1	4	3
General Psychology	1	4	3
Social Problems and Rural Education	1	4	4
Subject Elective			
Crop Entomology	1	4	4
Non Major Elective			
Local Water Resource Management	1	4	4
Extension Activities- NSS, NCC & Physical Education	1	0	1
Practical – 3	1	6	2
Practical – 4	1	2	1
Practical – 5	1	2	1
Total	9	30	23

Third Year

Fifth Semester	Course	Hours	Credit
Core Subject			
Social Research Methodology	1	4	4
Human Rights	1	4	4
Dynamics of Rural Development	1	4	4
Subject Elective			
Dairy Science	1	4	4
Environmental Studies	1	2	2
Non Major Elective			
Plantation and Medicinal Crops	1	2	2
Practical – 6	0	3	0
Practical – 7	0	3	0
Practical – 8	0	2	0
Practical – 9	0	2	0
Total	6	30	20

Sixth Semester	Course	Hours	Credit
Core Subject			
NGOs & SHGs for Rural Development	1	4	4
Family and Social Welfare	1	4	4
Panchayat-Raj Administration	1	4	4
Subject Elective			
Poultry Science	1	4	4
Value Education	1	2	2
Non Major Elective			
Rural Development Project Planning & Management	1	2	2
Practical – 6	1	3	5
Practical – 7	1	3	5
Practical – 8	1	2	5
Practical – 9	1	2	1
Total	10	30	36

**Scheme of Examination
First Year**

Subjects	Duration of Hours (External)	External Marks	Internal Marks	Total Marks
First Semester				
Tamil/Hindi/French	3	75	25	100
English	3	75	25	100
Core Subject				
Rural Society in India	3	75	25	100
Introduction to Animal Husbandary				
Subject Elective				
Fundamentals of Life Science	3	75	25	100
Non Major Elective				
Introduction to Energy Science	3	75	25	100
Non Major Elective (To be chosen from Non RDS Department)	3	75	25	100
Industrial Chemistry				
Total		525	175	700

Subjects	Duration of Hours (External)	External Marks	Internal Marks	Total Marks
Second Semester				
Tamil/Hindi/French	3	75	25	100
English	3	75	25	100
Core Subject				
Rural Economy & Cooperation	3	75	25	100
Computer Applications in Rural Development	3	75	25	100
Subject Elective				
Applied Botany	3	75	25	100
Non Major Elective				
Live Stock Production and Management	3	75	25	100
Fundamentals of Computer	3	75	25	100
Non Major Elective (To be chosen from Non RDS Department) Drugs and Cosmetics	3	75	25	100

Practical - 1		60	40	100
Practical - 2		60	40	100
Total		525	125	700

Second Year

Third Semester				
Core Subject				
Demography	3	75	25	100
Commercial Horticulture	3	75	25	100
Rural Industries and Management	3	75	25	100
Subject Elective				
Plant Pathology	3	75	25	100
Non Major Elective				
Rural Entrepreneurship Development	3	75	25	100
Total		375	125	500

Fourth Semester				
Core Subject				
Agronomy	3	75	25	100
General Psychology	3	75	25	100
Social Problems and Rural Education	3	75	25	100
Subject Elective				
Crop Entomology	3	75	25	100
Non Major Elective				
Local Water Resource Management	3	75	25	100
Practical- 3		60	40	100
Practical - 4		60	40	100
Practical - 5		60	40	100
Total		555	245	800

Third Year

Fifth Semester				
Core Subject				
Social Research Methodology	3	75	25	100
Human Rights	3	75	25	100
Dynamics of Rural Development	3	75	25	100
Subject Elective				
Dairy Science	3	75	25	100
Environmental Studies	3	75	25	100
Non Major Elective				
Plantation and Medicinal Crops	3	75	25	100
Total		450	150	600

Sixth Semester				
Core Subject				
NGOs & SHGs for Rural Development	3	75	25	100
Family and Social Welfare	3	75	25	100
Panchayat-Raj Administration	3	75	25	100
Subject Elective				
Poultry Science-4	3	75	25	100
Value Education	3	75	25	100
Non Major Elective				
Rural Development Project Planning & Management	3	75	25	100
Extension Activities				
Practical-6		60	40	100
Practical-7		60	40	100
Practical-8		60	40	100
Practical-9		60	40	100
Total		690	310	1000

Syllabus

First Year

First Semester

Core Subject

Rural Society in India

Objectives:

1. To impart basic knowledge about rural social structure.
2. To provide knowledge to the students about problems related to rural social institutions.

Unit-1

Rural Sociology- Nature, Origin and Scope of Rural Sociology, Importance of Rural Sociology- History and growth of Village Communities- Village Community- Meaning- Characteristics-Types- Village Settlement Pattern- Rural and Urban differences.

Unit-2

Rural Social Institutions- Meaning- Characteristics and Importance - Rural Family- Types- Characteristics-Functions- Marriage System- Steps- Types- Problems of Hindu Marriage- Recent Trends

Unit-3

Caste- Meaning- Concept of Varna and Jati- Dominant Caste- Caste Conflicts- Features of Caste System- Caste system- Merits and Demerits- Caste and Class Differences- SC/STs- Issues –

Unit-4

Rural Religions- System of beliefs and rituals- Those related to Health, Disease and Agricultural activity- Social Role of Religion- Significance of Temples in Rural Areas – Rural Economic System- Exchange of Goods and Services- Impact of Industrialization on Rural Society.

Unit-5

Social & Political Institutions- Traditional and Modern Village Panchayats- Role in Rural Social Development- Rural Leaderships- Types- Qualities- People's Participation & Participatory Initiatives.

Reference Books:

1. Desai, A.R., "Rural Sociology in India, 2009".
2. Chittamber, J.B., "Introduction to Rural Sociology, 2017".
3. Dube, S.S., "Indian Village"- 2012.
4. Majumdar, D.N., "Caste and Communication in An Indian Village"- 2010.
5. Baden Power, D.N. " Village Community of India".- 2011
6. Srinivas, M.N., " Social Change in Modern India"- 2014
7. Harris. J. "Rural Development: Peasant & Land Reforms". 2017.
8. Capadia, K.M., Marriage and Family in India- 2011.
9. Hutton, "Caste in India". 2013.
10. Chambers. R. Rural Development: Putting the Last First- 2016.

First Year

First Semester

Core Subject

Introduction to Animal Husbandry

Objectives:

1. Enable the Students to understand different systems of Farm Animals.
2. To give basic knowledge about Farm Management Practices.

Unit-1

Definitions of Common terms applied to Farm Animals. Poultry- Morphology- Breeds, Strain and Varieties of Cattle and Poultry- Exotic breeds.

Unit-2

Cattle Body System- Digestive system- Reproductive System- Mammary system- Definition of Cattle breeds- Definition of Cattle.

Unit-3

Poultry Body System- Digestive System- Reproductive System.

Unit-4

Fishery- Morphology and Economic Importance.

Unit-5

Farm Hygiene- Isolation- Quarantine- Disinfection.

Reference Books:

1. Singh and Moore: Livestock and Poultry Production.
2. Banerji GC: Text Book of Animal Husbandry.
3. ICAR: Hand Book of Animal Husbandry.
4. Williamson and Payre: An Introduction to Animal Husbandry in Tropic.
5. Gopalakrishnan GA: Livestock and Poultry Enterprises for RD.
6. NSR Shastri: Farm Animal Management and Poultry Production.
7. Jhingram, VG: Fish and Fisheries of India.
8. Santhanam R. Et.al. : Manual on Freshwater Aquaculture.
9. Venkataramanujam: A Manual on Fin Fish Biology.
10. Bardach, Ryther: Aquaculture.

First Year

First Semester

Subject Elective

Fundamentals of Life Science

Objectives:

1. To promote a basic understanding about the protein and hereditary materials of plants
2. To give the basic knowledge about micro organisms.

Unit-1

Protein- Types, Importance of Protein, Carbohydrates- Mono Saccharide, Disaccharide, Polysaccharide, Importance of Lipid- Types, Importance of Lipids, Vitamins- Types, Water Soluble & Fat Soluble Vitamins, Sources, Importance.

Unit-2

Hereditary material- DNA and RNA, DNA- Structure of DNA, Replication of DNA, Functions of DNA, Evidences to prove that DNA is the Genetic material, RNA- Structure of RNA, Types of RNA Functions of RNA, Evidences to prove that RNA the Genetic material of TMV.

Unit-3

Plant Tissue Culture- Techniques and Significance- Protoplasmic fussion. Mushroom Culture- Techniques- Uses.

Unit-4

Micro Organisms- Bacteria, Types, Structure, Multiplication , Importance, Viruses- Structure Multiplication, Yeast- Structure, Importance Life- Cycle.

Unit-5

Biogeochemical Cycles, Definition, Carbon Cycle, Nitrogen Cycles, Phosphorus Cycles.

Reference Books:

1. Ambika Shanmugam, 1992 Fundamentals of Biochemistry.
2. Annathakrishnan, Y.N. 1981. Bio Resources Ecology.
3. Conn. E.E and Stumpf, P.K. 1989. Outline of Bio- Chemistry.
4. De Robertis B.R.R. and De Robertis, E.M.F. 1981. Essentials of Cell and Molecular Biology.
5. Gardner. E.J. 1975. Principles of Genetics.
6. Glasstone, M. 1950. Text book of Physical Chemistry.
7. Glasstone, M. 1958. The Foundations of Life Science.
8. Lehniger, A.L. 1988. Bio Chemistry.

First Year
Non Major Elective
Introduction to Energy Science

First Semester

Objectives:

1. To impart basic Knowledge on Energy.
2. To enable Students to understand problems related to Energy.

Unit-1

Energy- Definition, Units of Measurement- Calorie, Joules- Law of Thermodynamic, Sources- Conventional/ Non Conventional, Renewable and Non Renewable Sources.

Unit-2

Solar Energy- Principles of Solar Energy, Wind Energy- Principles of Various types of Wind Energy.

Unit-3

Bio Energy- Sources, Bio Gas Production- Bio Gas Production- Uses- Problems- Fire Wood Collection & Storage- Rural Energy Consumption pattern.

Unit-4

Energy in Ecosystem- Energy in various Biotic components, Pond Eco System.

Unit-5

Food- Chain, Food- Web and Energy Flow. Ecological Pyramids- Pyramid of Numbers, Pyramid of Biomass, Pyramid of Energy.

Reference Books:

1. Robert, H. Rober (W.H. Freeman & Co), Energy- An Introduction o Physics.
2. Ramasamy. S. Energy Economics, Sage Publications. 2012.
3. W. Palz and P. Charlier- Energy fro Biomass in Europe, App. Science Publishing Ltd. London, 1980.
4. G. Milazzo- Energetics and Technology of Biological Elimination of Waste, Slsiwers Scientific Publishing Co., Amsterdam, 20111.
5. Odum- Fundamentals of Ecology. Sanders Co. Philadelphia, 2015

First Year

First Semester

Non Major Elective (Non RDS Students)

Introduction to Rural Development

Objectives

1. To promote a basic understanding about the concept relating of Rural Development and its administration.
2. To provide knowledge and observe critically the various Rural Development Programmes of Government.

Unit – 1

Rural Development – Meaning – Definition – Objectives of Rural Development in India.

Unit – 2

Earlier Experiments of Rural Development – Gandhian Constructive Programme at Sevagram, Firka Development Scheme, Marthandam Project, Etawa Pilot Project – Approaches to Rural Development – Gandhian, Micro level, Mixed farming and Integrated approach to Rural Development.

Unit –3

Rural Development Programmes – Community Development Programmes – IRDP- RLEGP – TRYSEM – SGSY (Swarnajayanti Gram Swarajgar Yojana) – Women SHG – Role of Ngo in Rural Development- MNREGS: Objectives, Functions, Achievements

Unit – 4

Panchayat Raj System - Directive Principles of State Policy – Balwantrai Mehta Committee Report – Types of Local Government – Structure of Rural Local Bodies – New Panchayat Raj Act – 73rd Constitutional Amendment – Differences between Old and New Panchayat Raj System

Unit –5

Rural Development Organizations and Extension Methods – NIRD –State Institute of Rural Development –MORD, Government of India–Role of Extension in Rural Development–Recent Scenario – State Level Rural Development Schemes for Rural Poor Families and Vulnerable Section – Pudhu Vazhuv Thittam – Mahalir Thittam – Youth Club – SHGs – Farmers Clubs and Other Rural Institutions.

Reference Books

1. Katar Sing (2016): *Rural Development -Principles, Policies & Management*, SAGE Publications, New Delhi.
2. Bhatia.B.S. Rural Development Management, B.R. Publishing Company, New Delhi, 2003.

First Year

Second Semester

Core Subject

Rural Economy & Cooperation

Objectives:

- 1.To promote a basic understanding about the rural economy and agriculture.
- 2.To enable the students to understand the various rural cooperative organizations.

Unit-1

Meaning of Rural Economics- Agriculture and Economic Development- Characteristics of Indian Agriculture- Principle Crops in India- Land Reforms- Rural Labour- Agricultural labour in India- Bhoodan and Gramdan Movement- Rural Finance- Micro-Finance & Credits.

Unit-2

Farming Systems- - Sub- division and Fragmentation of land holdings- Consolidation of holding- Land Reforms- Agriculture Development & Policy - Intensive Agricultural District Programme (IADP)- Intensive Agricultural Area Programme (IAAP)- National Agricultural Development Programme (NADP)- Agricultural Technology Management Agency (ATMA)- Integrated Farming- Crop Insurance Schemes.

Unit-3

Agricultural Marketing- Marketing of Agricultural Products in India - Government and Agricultural Marketing- Village Weekly Markets- Food Security- Price Control & Public Distribution System- Agricultural Development in Five Year Plans.

Unit-4

Meaning & Definition of Co- Operation- Principles- Co- Operative Movement in India - Central Co-Operative Banks - Primary Agricultural and Rural Development Cooperative Bank- Primary Agricultural Cooperative Societies (PACSS)- Objectives- Functions- Role of NABARD- Role of Cooperatives in Rural Development

Unit-5

Co-Operative Marketing Societies- Regulated Marketing Societies – Cooperative Sugar & Textile Mills- Organization and Functions - Dairy and Poultry Co-Operatives as a Source of Supplementary Income in Rural Area- Government's Role - Co-operative Education and Training- Tamil Nadu Co-Operative Federation.

Reference Books:

1. Vasant Desai, “ Agriculture & Rural Development, Himalaya Publishing House, New Delhi- 2018.”.
2. Satya Sundaram “Rural Development, Himalaya Publishing House, New Delhi- 2018.”.
3. Sankaran.R. Indian Econmy, Kanishka Publications, New Delhi- 2017.
4. Dr. Mathur, B.S., “Co-operation in India”. Sage Publications- 2017
5. Nakkeeran.S. Co-operation and Rural Development, TRS Publishers, New Dehi.

First Year

Second Semester

Core Subject

Computer Applications in Rural Development

Objectives:

1. To impart knowledge about computer applications in Rural Development.
2. To make the students to aware about Digitalization of Rural Development.

Unit-1

Computer- Meaning- Definition- Characteristics- Computer Input Devices-Mouse-Keyboard- Special Keys- Short cut Keys- Output Devices- Monitor- Printer- Dot-matrix – Inkjet & Laser.

Unit-2

Classification of Memory System (Storage)- Internal Memory System RAM- ROM- Hard Disk- External Memory System- CD ROM, Pen drive- Computer Hardware and Software- Differences- Classifications of Software Systems

Unit-3

Internet Uses: Browser and Its types – Network of Computers- Types- LAN- WAN- MAN-- Internet Modem- Email- www- Rural Development Websites.

Unit-4

MS Word- Elements of Word files- Menu bar- Tools bar- Title Bar- File Menu Commands- Creating, Saving, Using Undo feature- Cut- Copy- Paste.

Unit-5

Communication- Meaning- Elements Computer and their Impact on Rural Development- Rural Extension - Mass Media- TV & Film- Audio Visual Aids.

Reference Books:

1. Laxmi Devi (1998) Encyclopaedia of Rural Development, Rural Poverty and Employment, New Delhi, Amol Publications Private Limited.
2. Parris, W., Windows 95.
3. Rao. N. Das. R. P. Communication Skills, Himalaya Publishing House, New Delhi- 2018.
4. DR. R. Krishnamoorthy, “Basics of Computer Science”, J.J Publication.
5. Maria, MS-Office 2000 Training Guide BPB Publication, B-14 Connaught Place, New Delhi-110001.
6. Computers- Windows- CBM- Publications, Mumbai.
7. Kuppusamy, K 1984 Communication and Social Development in India.
8. Steinberg, SC 1998 Mass Media and Communication, New York Hostings House.
9. Rajaji, K: Fundamentals of Computer.

First Year
Subject Elective
Applied Botany

Second Semester

Objectives:

1. To impart basic knowledge about plant breeding and plant nutrients.
2. To provide knowledge to the students about seeds and plant morphology.

Unit-1

Plant Breeding: Selection, Hybridization, Hybrid vigour, Crop Improvement and Varieties in Rice and Sugarcane.

Unit-2

Plant Nutrients: Crop- Rotation, Cropping- Pattern. Macro- Micro Nutrients, Trace Elements sources of Nutrients. Manures and Fertilizer- Manures, Green Manure, Green leaf Manures, Organic manure, Farm yard, Cakes, Compost, Bone Meal, Fertilizers- Nitrogenous, Phosphatic and potasic. Bio- Fertilizers.

Unit-3

Soil: Definition, Structure and Composition of the soil, Origin of soil, Soil Complex-Physical and Chemical Properties, Soil Texture, Porosity, Types of Soil, Soil Organisms, Soil Water, Soil Profile, Soil Fertility, Importance of Soil.

Unit-4

Seeds: Definition of Seed, Seed structure, Dicot- Monocot Seed Germination. Quality of good seed, Classes of seed, Seed Protection. High Yield varieties of Rice and Cotton- Seed Preservation Techniques.

Unit-5

Plant Morphology (Angiosperms): Morphology of Roots, Stems and Leaves. Underground Stems and Root Modification, Dicot and Monocot flowers, Plants for Sustainable Environment & Development

Reference Books:

1. Chandhari, H.K. 1986, Elementary Principles of Plant Breeding. Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi-110002
2. Daniel Sundararaj.D and Thulasidas.G 1976, Botany of Field Crops, S.G. Wasavi-MacMillan Company of India Ltd.
3. Hudson. T. Hartmann and Dale, E. Kester 1989. Plant- Propagation, Prentice Hall of India Private Ltd, New Delhi-110001.
4. Firman E. Bear 1964. Chemistry of the Soil Oxford and IBH Publishing House, New Delhi.
5. Krishnan, N. T. 1993. Economic Entomology. J.J. Publication, Madurai-25
6. Daniel Altman Roberts. 1987, Fundamentals of Plant- Pest Control. CBS Publishers and Distributors. Delhi-110032 PP: 1-86; 89-138; 164-186.

First Year

Second Semester

Non Major Elective

Live Stock Production and Management

Objectives:

1. Enable the students to understand different breeding techniques.
2. To give basic knowledge about conservation of forage and process of digestion of animals.

Unit-1

Breeding Techniques- Age at maturity- Estrous Cycle- Mating Season- Synchronization- Reasons for Infertility.

Unit-2

Insemination- Pregnancy- Parturition- Lactation- Young and Adult Management.

Unit-3

Classification- Composition of feed materials- Unconventional feeds and their enrichments.

Unit-4

Conservation of Forage- Hay, Silage making- Qualities, Nutrient requirements for farm Animals, Methods of computing ration and Feeding Management.

Unit-5

Process of Digestion, Absorption and Utilization of various nutrients in the animals' body- Breeding of Country Side Animals & Bullocks- Support to Organic Manure Preparation

Reference Books:

1. Livestock Breeding in India by Sundaresan.
2. Genetic and Breeding of Farm animals by Mukherjee and Banerjee.
3. Animal Nutrition by G.C Banerjee.
4. Animal Nutrition in tropics by S.K.R Anjan.
5. Veterinary Medicines by Udall.

Objectives:

1. To promote a basic understanding about the agriculture and soil science.
2. To provide knowledge and observe critically the various cultivation practices and plant protection methods.

Unit-I

Introduction

Agriculture – Meaning – Importance – Need for Scientific Approach – Branches of Agricultural Sciences – Crop – Husbandry, Soil Science – Sericulture – Mushroom culture – Research and Extension Set up ICAR – TNAU – KVKs.

Unit – II

Agronomy

Study of Properties of soils – Tillage Methods – Manures and Fertilizers – Study of crop Husbandry from Field preparation to harvest – soil Science and Agricultural chemistry.

Unit – III

Horticulture

Study of Fruit Crops (Pomology), Vegetable Crops (Olericulture), Flower Crops (Floriculture) and plantation crops (Beverage) Spices and Medicinal crops.

Unit – IV

Crop Entomology

Study of insect pests – life cycle, Nature and damage caused by insect pests- Control methods- Insecticides – Integrated Pest Management.

Unit V

Plant Pathology:

Study of plant diseases – Basic Knowledge on Bacteria, Fungi, Virus, Mycoplasma – Classification of Plant diseases – Disease Control Fungicides, Bactericides, Integrated disease management.

Reference Books

1. Elements of Economic Entomology – B.Vasantharaj David
2. Agricultural Entomology – Singh – ICAR, New Delhi.
3. Hand Book of Agriculture – ICAR, New Delhi
4. Diseases of Crop Plants in India, G.Rangaswami, Asia Book Company
5. Introduction to Horticulture – DR.N.Kumar, Rajalakshmi Publication, Nagercoil
6. Nature and Properties of Soils – Buckman.O and Brady.C., Eurasia Publishing House (P) Ltd., N.Delhi.
7. Principles of Agronomy – V.T.Subbiahmudaliar and Dr.Sankaran, Bangalore Printing and Publishing co., Banagalore.

First Year- Practical

First Semester & Second Semester

Practical-1

Study of Rural Social Structure- Social Institutions NGOs and Field.
Small Survey on Socio Economic Condition of Village.

Observational Visits to:

- YMCA Marthandam
- Rural University Gandhigram
- Gandhi Niketan Ashram
- Model Villages

Identification, Short notes, written test, Field work, Field visit, Record writing, Submission and Periodical Evaluation including Oral test- Viva Voce.

Practical-2

Study of Carbohydrates, Proteins fats genetic materials, Micro Organisms, Plant Nutrient, Soil Science, Seed Physiology and Structure, HYV Seeds Plant Morphology.

Identification, Short notes, written test, Field work, Field visit, Record writing, Submission and Periodical Evaluation including Oral test- Viva Voce.

Second Year

Third Semester

Core Subject

Demography

Objectives:

1. To impart knowledge about population studies and population theories.
2. To provide knowledge to the students about population growth and its problem.

Unit-1

Meaning- Definition, nature and scope of Demography- Advantages – Importance- Rural Population- Characteristics & Features

Unit-2

Theories of Population- Malthusian, Optimum Theories- Theory of Demographic Transition- Causes- Size of population in India- Nature of India's population problems.

Unit-3

Density of population- Composition of India's Population- Age and Sex Composition, Rural and Urban- Educational and Economic Composition- Vital Statistics

Unit-4

Population Growth- Fertility and Fecundity- Mortality- Factors influencing population growth- migration- types- causes and consequences of migration- Urbanization and Industrialisation Population growth- Control Measures of Migration- Poverty Reduction & Employment Generation.

Unit-5

Population Data- Census- Procedure- Census in India- Census of 2001- 2011- Population Projection- Population Register- Sex Ratio- Need for Female Children Protection- Legal Actions- Social Awareness on Child Protection

Reference Books:

1. Raj, Hans- Fundamentals of Demography, Surjeet Publication New Delhi.
2. Sinha, V.C- Dynamics of India Population Growth, New Delhi, National Publishing.
3. Dr. Hans Raj, Fundamentals of Demography, (Population Studies with special reference to India) 7-X Kothapudur Road, Kamala Nagar, Delhi-07.
4. Barnabas, A.P. Population control of India, Indian Institute of Public Administration; Indraprastha Estate, Ring Road, New Delhi.
5. Kuppusamy- Population and Society in India, Popular Pragashan.
6. Dr. Chandassekar- Studies in Demography, Pinceto George Allen and Unwin.
7. Agarwala, S.N. India's Population Problem, Tata McGraw Hill, Bombay, Asha A, Bhende- Principles of Population Studies.

Second Year

Core Subject

Commercial Horticulture

Objectives:

1. To enable the students to understand the importance of horticulture.
2. To impart knowledge to the students about the various cultivation practices in horticultural crops.

Unit-1

Horticulture- Need for Rural Development- Different Wings- Scope for Rural Employment & Income Generation- Fruit Cultivation- Role of Fruits in Human Nutrition and their Economic importance- - Selection of site for orchard- Preliminary Works- Methods of Planting Trees in an Orchard- Propagation- Sexual- Advantages and Disadvantages of Sexual Propagation- Types of Grafting- Types of Budding.

Third Semester

Unit-2

Cultivation Process for Fruit Crops & Vegetable Crops- Land & Soil types- Methods of Irrigation- Surface, -drip & Sprinkler Irrigation -Manures- Growing systems- Cultivation of Mango, Banana, Citrus, Grapes, Guava, Papaya, Pomegranate- Tomato- Potato- Onion- Bitter gourd- : Drumstick- Chow- chow- Green Leaves

Unit-4

Cultivation practices for the following Cool season vegetable crops- from land preparation to harvest Cole Crops: Cauliflower, Cabbage- Root Crops: Radish, Carrot - Peas and Beans: Cowpea, Avarai- Cultivation practices for the following Warm season vegetable crops- from land preparation to harvester- Solanaceous Vegetables: Tomato, Brinjal -Tuber Crops: Sweet Potato, Tapioca -Bulb Crops: Onion, Garlic- Bhendi.

Unit-5

Mushroom Cultivation- Fruit Vegetable Preservation- Methods- Drying, Canning- Preparation of Jam- Jellies- Syrups- Squashes- Pickles- Kitchen Gardening- Growing of Ornamental Crops- Establishment of Nurseries and Orchards- Running Techniques.

Reference Books:

1. A guide on Agriculture- Dr. J.S. Sundararajan et al, Velan Pathippagam, Coimbatore.
2. A hand of Agriculture- ICAR- New Delhi.
3. Vegetables, Fruits- B. Choudhury- National Book Trust. New Delhi.
4. Seermigu Sagupadi- M.A.S.U- Coimbatore.
5. Practical Horticulture- James. S. Shoemaker- John wily & Sons, New York.
6. Scientific Fruit Culture- Dr. D. Veeraragavathadtam- et al. Suri Assocites, Coimbatore.
7. Introduction to Horticulture- Dr. N. Kumar, M/S Bharathi Press, Chettikulam, Nagercoil.
8. Text Book of Horticulture- K. Mani Bhusan Rao- Macmillan India Ltd.

Second Year

Third Semester

Core Subject

Rural Industries and Management

Objectives:

1. To enable the student to understand the importance of small scale and cottage industries.
2. To impart the knowledge to the students about the rural industrial management.

Unit-1

Rural Industries- Meaning & Definitiosn- Importance- Classification of Rural Industries- Cottage- Small Scale & Tiny Industries- Problems of Rural Industries- Rural Artisans- their Potentialities and Problems- Rural Artisan Development Programmes (RAP).

Unit-2

Financial Assistance- National Small Industries Corporation (NSIC)- Commercial Banks- National Bank for Agriculture and Rural Development (NABARD)- District Industries Center (DIC)- Khadi and Village Industries Commission (KVIC)- Small Industries Development in India (SIDBI)- MFIs- PMKUY.

Unit-3

Experimental Study on the Select Rural Industries- Dairy farm- Piggery- Poultry- Mushroom Culture, Bee Keeping- Gobar/ Bio-Gas Plant- Recent Trend- Problems- Solutions.

Unit-4

Rural Industrial Management- Concepts & Meaning- Definitions- Types and Principles of Management- POSDCORB- Training- Employment Generation

Unit-5

Local level & Appropriate Technology- Meaning- Need for Production- Local Raw Materials- Marketing Research- Rural Industries & Poverty Reduction.

Reference Books:

1. RAO, R.V. Rural Industrialization in India, Concept Publishing Co.- 2015
2. Mathur, O.P, Manual on Industrial State, SIET, Hyderabad- 2010..
3. Vasant Desai ‘ Rural Development’ Vol-VI Himalayas Publishing House, Bombay, 2009.
4. Balakrushnan G. ‘Financing of Small Scale Industries in India- Poona.
5. Ford Foundation: Development of Small Scale Industries in India- Prospects, Problems and Policies: Ford Foundation, New Delhi.
6. Sridhar. G. Rural Development, Concept Publishing Company, New Delhi, 2015
7. Mathur. K.G. Small Scale Industries, New Delhi.
8. Vasant Desai, Management of a Small Scale Industry, Himalayas Publishing House, Bombay.

Second Year

Subject Elective

Plant Pathology

Objectives:

- 1.Enable the students to understand the different type of plant diseases.
- 2.To give basic knowledge about the plant disease control.

Unit-1

Classification of Plant diseases- Based on the host Plants- Based on the symptoms- Based on the mode of spread- Based on the casual organisms- Nature and Damage caused by casual organisms- Koch Postulates.

Third Semester

Unit-2

Principles of Plant disease control- Eco friendly measures- Exclusion- Eradication- Protection- Integrated Disease Management- Bactericides- Fungicides.

Unit-3

Symptoms- Casual organisms- Control of major disease affecting food crops Cereals- Rice, Cholam- Pulches- Green Gram and Red Gram.

Unit-4

Symptoms- Casual organisms- Control of major disease affecting oil and cash crops- Oil seeds- Groundnut, Coconut and Gingelly.
Cash crops- Cotton and Sugar cane.

Unit-5

Symptoms- Casual organisms- Control major disease affecting Plantation.
Spice Crops- Plantation Crops- Coffee and Tea
Spice Crops- Cardamom and Pepper
Fruits and Vegetables- Mango, Banana, Tomato and Potato

Reference Books:

1. G. Rangaswami "Diseases of Crop Plant in India" Asia Book Company.
2. Rangaswami. G and Sowmini Rajagopalan- Bacterial Plant Disease.
3. U.S.I.S. Plant Pathology.
4. A Handbook of Agriculture- ICAR.
5. Dr. C.V. Govindaswami and Dr. M.N. Alagianagalingam- Plant Pathology.

Second Year**Third Semester****Non Major Elective****Rural Entrepreneurship Development****Objectives:**

1. To enable the student to understand the importance of entrepreneurship in Rural Area.
2. To impart the basic knowledge to the students about the various Rural Entrepreneurship Organizations.

Unit – 1

Rural Entrepreneurship Development - Definition, Meaning - Types - Development Process- Role of Entrepreneurs in Rural Development

Unit – 2

Rural Enterprises - Meaning, Definition. Characteristics and Types of Enterprises - Entrepreneurship and Self-employment and income generation activities - Steps in setting up a small industrial enterprise - SWOT analysis

Unit- 3

Rural Small Business Management - Meaning, Organizing - Leading, Co-ordinating, and controlling Training Programme for Entrepreneurship Development - Entrepreneurial Motivation

Unit – 4

Development of Women Entrepreneurs. - Importance - Problems of Women Entrepreneurs - Selection of Industry/Business by Women Entrepreneurs - Types of Industries/ Business

Unit – 5

Organisations for Rural Entrepreneurship Development- Organizations in the service of entrepreneurs - Government Institutions and their impact — Banks, their role and their impact – NGOs Role

Reference Books

1. Gardon >E. & Nataraja. K. Entrepreneurship Development, Himalaya Publishing, ND-2018.
2. Neeta. B. Entrepreneurial Development & Project Management, Himalaya Publishing, ND- 2018
3. Sharma K.I. Entrepreneurial Performance in Role perspectives
4. Vasant Desai Management of small scale industries Himalaya Publishing House, ND- 2018..

Second Year

Fourth Semester

Core Subject

Agronomy

Objectives:

1. To impart basic knowledge on various cropping system.
2. To give knowledge about various irrigation methods.

Unit-1

Agronomy- Need for Scientific Knowledge- Extensive & Intensive Cultivation-Soil-Definition- Types- Water- Crop Processing- Irrigation- Water Requirement of Important Crops- Methods of Irrigation.

Unit-2

Weeds- Classification- based on ecological conditions, types of soils botanical family, special types of weeds- Weed control- Physical, Chemical, Agronomic and Biological Methods- Weedicides- Classification- Methods of Application.

Unit-3

Cultivating Practices from land preparation to harvesting for the Crops Cereals- Paddy, Cholam Pulses- Black gram, Red Gram- Oil Seeds- Groundnut, Coconut- Fibres- Cotton Sugar Crop- Sugarcane.\

Unit-4

Cropping system- Monoculture- Mixed cropping- inter cropping- multiple cropping- rotation- characteristics and advantages of crop rotation- relay cropping and multi tier cropping- Monsoons- South west monsoon, North east monsoon- Agricultural Seasons- Dry farming Practices- Organic Farming.

Unit- 5

Tillage- Definitions- Types- Tillage Implements- Manures & Fertilizers- Organic & Inorganic- Bio-fertilizers- Organic Farming

Reference Books:

1. Principles of Agronomy Dr. S. Sankaran (late) V.T Subbiah Mudaliar, Bangalore Printing & Publishing Co. Ltd., Bangalore-18.
2. A Hand Book of Agriculture ICAR- New Delhi.
3. Seermigu Sagupadi- MASU- Coimbatore.
4. Velanmaiym Seimuraikalum- Dr. Mariakulandai- NCBH, Chennai.
5. The Nature and Properties of Soil- Buckman.O and Brady. C-Eurasia Publishing House Private Ltd., New Delhi.
6. Cropping Systems- Theory and Practice- B.N Chatterjee.

Second Year

Fourth Semester

Core Subject

General Psychology

Objectives:

1. To provide knowledge about the nervous system of human body.
2. To promote a basic understanding about human feelings and emotions.

Unit-1

Psychology- Definition- Nature- Scope- Branches- Relationship with Sociology- Social Psychology.

Unit-2

Physical basis of mental life- Nervous system- Central- Peripheral- Functions- Autonomic Nervous System- Functions- Synapse- Reflex action.

Unit-3

Attention and Perception- Meaning- Definition- Kinds- Factors of Attention- illusion and hallucination- Meaning- Types.

Unit-4

Feelings and Emotions- Meaning- Sympathy- Emotion and Feeling- Bodily changes in emotions.

Intelligence- Meaning- Nature- Intelligence Quotient- Concept of Personality- Meaning- Factors affecting personality- Types of Personality – Traits- Heredity and environment in individual development.

Unit-5

Motivation- Meaning, Definition and Characteristics of motivated behavior- Rural Public Opinion- Meaning- Importance- - News Papers- Radio- TV- Cinema- Electronic & Social Media.

Reference Books:

1. Ramnath Sharma, “ General Psychology” Rahtans Prakashan Mandir, Meerut.
2. Gulforclo, J.P “ General Psychology” Affiliated Eatt, West Press, New Delhi.
3. Munn, N.L., “ Introduction to Psychology” O & IBH Publication company, Calcutta.
4. Boaz, G.D “ Some Fundamentals of Psychology” Gunalaya, Gandhinagar, Madras-20.
5. Boaz, G.D. “ Elements of Psychology” Action Lodge, II.Mc Nicholas Road, Madras-31.
6. Raj, B.C. “ General Psychology” Bharati Printers and Publishers, Aminabad, Lucknow.
7. Ramanath Sharma, “ Socil Psychology” Rahtans Prakashan Mandir, Meerut, 1980.
8. Kuppusamy.B, “ An Introduction to Social Psychology” Asia Publishing House, Bombay.

Second Year

Fourth Semester

Core Subject

Social Problems and Social Education

Objectives:

1. To give the basic knowledge about the rural socio economic knowledge.
2. Enable the students to understand the importance of social education

Unit-1

Major Socio Economic Problems in Rural India- Poverty- Unemployment and Under Employment- Population explosion- Illiteracy- Youth Unrest- Drug addiction- Causes- Preventive and Remedial measures.

Unit-2

Rural Social Change- Meaning- Factors bringing about changes in villages- Values- Social Change its trends in Peasant Communities- Planned Social Change- Mass Media Communications.

Unit-3

Social Education- Concept of Social Education- Principles- Objectives of Social Education- Methods of Social Education- use of Audiovisual aids- Group discussion- - Mass

Education- Formal and Non formal Education- Educational facilities in village SSA (Sarva Shiksha Abiyan)- Objectives- Salient features of SSA- Dropouts- Causes and remedies.

Unit-4

Social Legislation- Definition- Meaning- History of Social Legislation- Hindu Marriage Act- Dowry Prohibition Act- Hindu Succession Act- Child Labour Regulation and Abolition Act.

Unit-5

What are the Human Rights- Origin- Concepts- Meaning- Constitution- Provisions and Law relating to human Rights in India- Rights of Minorities and Dalits- Human Rights Violations in India.

Reference Books:

1. Desai, A.R “ Rural Sociology in India”.
2. Dube, S.S. “Indian Village”.
3. Baden Power, D.N. “ Village Community of India”.
4. Srinivasa, M.N “ Social Change in Modern India”.
5. Bose, N.K. “ Present Life India”.
6. Kuppusamy, B. “ Social Change in India”.
7. Redfield, R. “ Peasant Society and Culture”.
8. Datta, S.C. “ Social Education”, Indian Adult Education Association, New Delhi-1.
9. Indian Adult Education Association, The Highways and Byeways of Adult Education in Russia”, New Delhi, 2017.
10. “Social Education”- Concept and Method, Orient Longman, Calcutta, 2014.

Second Year

Fourth Semester

Subject Elective

Crop Entomology

Objectives:

1. To impart knowledge about the different types of life cycle of insects
2. To provide knowledge about the principles of best control

Unit-1

Types of Insects- Nature and Damage caused by insects- General life history of Major groups of insects.

Unit-2

Life cycle, Damaged caused and control measures of major pests of food, oil and Cash Crops- Cereals: Rice and Cholam.

Pulse: Redgram and Green Gram.

Oil Seeds: Groundnut and Gingelly.

Fiber: Cotton.

Sugarcane.

Unit-3

Life cycle, Damaged caused and control measures of major pests of fruits and vegetables.

Fruits: Mango and Banana - Vegetables: Brinjal and Tomato.

Unit-4

Principles of Pest control- Cultural- Mechanical- Biological- Chemical methods- Integrated Pest Managements.

Unit-5

Duster and Sprayers- Types Structures- Handling of Sprayers and Dusters- Precautions handling of sprayers and dusters- Other plant protection equipments.

Reference Books:

1. Ramakrishna Iyer- Economic Entomology.
2. Singh- Agricultural Entomology- ICAR, New Delhi.
3. Vasanthraj David, B. Kumarasawami, Elements of Economic Entomology.
4. John Wiley and Sons, A Text Book of Entomology, New York, London, Sydney- Herbert H.Ro.

Second Year

Fourth Semester

Non Major Elective

Local Water Resources Management

Objective: To make the student to aware about management practices of local water resources and development.

Unit 1

Water Resources– Local Perspectives & Global Scenario– Usage of Fresh water- Increasing Demand for Domestic and Irrigation usage.

Unit 2

Local Water Resources –Availability and Usage – Water Structure and Water Bodies – Canals – Water sub- channels- Tanks, Ponds – Wells- Open Wells & Tube Wells- Field to Field Irrigation

Unit 3

Management of Local Water Resources – Conservation of Tanks – Tank properties – Bunds –Foreshore Area- Canals and Canal Banks– Well Irrigation-Water Storage System – Distribution Practices

Unit 4

Participatory Irrigation Management– Concept & Practices – Traditional Management of Tanks and Ponds – Local Technology and Management of Canals, Tanks and Wells.

Unit 5

Methods and Techniques for Management of Local Water Resources – Ground Water Recharge – Tanks storage – Percolation tanks – Farm Ponds – Management of existing water bodies situated in Villages- Plan for Local Water resources management.

Reference Books

1. Anil Agarwal & Sunita Narain (2003). Dying Wisdom: Raise & Fall, Centre for Science & Environment, New Delhi.
2. Balamurugan, P (2016) A Monograph on Local Level Water Bodies and Environmental Sustainability: A Case of Rural Tanks in Tamil Nadu, Centre for Rural Development, Annamalai University, Annamalai Nagar.
3. Indian Institute of Technology (2009) A Report on India's Irrigation Needs and Strategies for Development, Kharagpur.
4. Indian Council of Agricultural Research (2013) Moving from Water Problems to Water Solutions: Research Needs Assessment for the Eastern Gangetic Plains Proceedings of the International Workshop, New Delhi, India, May 7-8.
5. Palanisami, K, Balasubramaniyan, R and Mohammed Ali, (1997) Present Status and Future Strategies of Tank Irrigation in Tamil Nadu, Tamil Nadu Agricultural University, Coimbatore.
6. G. Chandrakumar & N. Mukundhar, "Water Resources Management- Thrust & Challenges: Sarup & Sons, New Delhi. 2006

Second Year

Fourth Semester

Second Year- Practical

Third Semester & Fourth Semester

University Practical exams will be conducted at the end of the Second year in the Fourth semester on 60:40 basis.

Practical-3

Study of Vegetable and Fruit Crops- Orchard- Dairy, Poultry Units, Fishery and Cattle Unit.

Places of Visit:

TNAU, Coimbatore- Krishi Vigyan Kendra and Research Station- Department of Agronomy & Horticulture- Manure and Fertilizers, Compost Making, Vermi Compost, Irrigation Methods Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce.

Practical-4

Study of important Pests and Insects- Insects Collection- Field Demonstration for identification of Plant Diseases.

Places of Visit:

TNAU, Coimbatore and Research Centers- Department of Plant Protection. Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce.

Practical-5

Visit to Madurai District Tiny and Small Scale Industries Associations (MADITSSIA)- Observations- Case Study- Presentations- Report Submission.

Places of Visit:

Horticultural Colleges and Research Stations & MADITSSIA, Madurai.

Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce.

Third Year

Fifth Semester

Core Subject

Social Research Methodology

Objectives:

1. To promote a basic understanding about different types of research methods.
2. To impart knowledge about data collection and report writing.

Unit-1

Social Science Research- Meaning & Definitions- Objectives- Scope- - Types- Significances in Rural Development Research- Farm Research.

Unit-2

Research Methods- Design- Survey Method- Case Study- Experimental Method

Unit-3

Sampling Techniques- Meaning and Types- Random & Non random Sampling- Simple, Systematic, Stratified Random Sampling- Purposive and Quota Sampling- Census Method.

Unit-4

Data Collection: Primary Data- Secondary Data- Tools- Interview Schedule- Questionnaire.

- Usage of Statistical Tools- Mean, Median & Mode- Percentage Analysis- Data Interpretation-.

Unit-5

Report Writing: Purpose- Contents- Foot Notes- Bibliography- Citation & References (APA Method)- Quality of a Good Research Report

Reference Books:

1. Nakkeeran. Research Methodology for Rural Development, Sage PublicationsS. 2013.

2. Agnihotri Vidyadhar, Techniques of Social Research, M.N. Publishers, New Delhi, 2010.
3. Jaspal Singh, Methodology and Techniques and Social Research, Kanishka Publishers, New Delhi, 2001.
4. Chapin, F.S. Experimental Designs in Sociological Research, Harper, New York, 1947.
5. Conway, Freda, An Introduction for Social Scientists, Allen & Unwin, London, 1967.

Third Year

Fifth Semester

Core Subject

Human Rights

Objectives:

1. To enable the students to understand the basic concepts of Human Rights and Its relevance in our day to day lives.
2. To know the various Instruments and Laws relating to Human Rights protection.
3. To guide the students in knowing his/her basic rights and the rights of the vulnerable sections of the society.
4. To help the student to identify various Human Rights violations and its appropriate redressed forums.

Unit-1

Introduction to Human Rights:

What are the Human Rights- University of Human Rights- The Universal Declaration of Human Rights.

Unit-2

UN and Human Rights:

Un Commission on Human Rights- UN Major Human Rights Instruments- International Covenant on Civil and Political Rights- Convention on the Elimination of Discrimination against women- Convention on the Rights of the Child.

Unit-3

Human Rights in India:

The origin of Human Rights in India- Constitutional Provisions laws relating to Human Rights in India . Rights of Minorities and Dalits in India- Human Rights Violations in India.

Unit-4

National Human Rights Institutions:

The National Human Rights Commission of India- National Commission for SC/ST- National Commission for Minorities.

Unit-5

National Commission for Women- State Human Rights Commission and attached bodies.

Reference Books:

1. Rolf Kunnemann. Dr. Food and Freedom- A Text Book of Human Rights Education.
2. Ravindran. D.J. Human Rights Praxis- A Resource book for Study, Action and Reflection.
3. Institute of Human Rights Education (Compilation)- Human Rights Study Material.
4. Mathew, P.D. On Your Rights if you are attested.

Third Year

Fifth Semester

Core Subject

Dynamics of Rural Development

Objectives:

1. To promote a basic understanding about the administrative structure of rural development.
2. To give basic knowledge about various strategies and approaches to rural development.

Unit-1

Rural Development- Concept- Meaning- Definition- Objectives- Principles- Scope and Importance- Rural Development in India.

Unit-2

History of Rural Development- Earlier Experiments- Community Development- National Extension Services- Approaches to Rural Development- Gandhian Approaches and Integrated Rural Development.

Unit-3

Administrative Structure- Central & State Level Ministry of Rural Development - National Institute of Rural Development - State Directorate of Rural Development- District Rural Development Agency- Block Development offices

Unit-4

Strategies and Approaches – Lead Bank Approach – Integrated Rural Development – Poverty Reduction and Employment Generation – Recent Rural Development Programmes – Rural Housing and Sanitation – MNREGS: Objectives, Functions, Achievements – IRDP- RLEGP- TRYSEM- SGSY- Pudhu Vazhuv Thittam – Mahalir Thittam- People's Participation

Unit-5

Role of NGOs in Rural Development in the context of Globalization- Development Planning -Decentralized Planning and Its Relevance -Five Year Plans and Rural Development - SIRD- Gandhigram- Rural University- RTU- SIDT- Gandhiniketan Ashram- ASSEFA-ARD.

Reference Books:

1. Harris. John. “ Rural Development, Oxford University Press, London, 2000.

2. Dhama, O.P., Extension and Rural Welfare, Ram Prasad and Sons, Agra, 1972.
3. Sridhar. "Rural Development"- Asia Publishing House, 1962.
4. Singh S.P. "Emerging Institutions In Rural Development", National Institute of Rural Development & Panchayat Raj, Hyderabad, 2012.
5. Katarsing, Rural Development, Himalaya Publishing, New Delhi, 2004.
6. Shiva kumar, Rural Development through Technology Interventions, Mahaveer & Sons. 2006.
7. Rajiakodi. M " Rural Development, Madurai, 2014
8. Shriram Maheswari, "Rural Development", Indian Private Limited, 36, Pannalal Road, Allahabad. 2011.

Third Year

Fifth Semester

Subject Elective

Dairy Science-3

Objectives:

1. To impart basic knowledge on cattle breeds.
2. To provide knowledge about care and management of live stocks.

Unit-1

Study of Cattle breeds of all India importance- Dairy- Draught and Dual type- Exotic breeds- Buffalo.

Unit-2

Care and Management- How to approach and handle animals- Care and management of different classes of live stock- Cow, Calf heifer, Identification of animals.

Unit-3

Organization of a dairy farm- Principles of dairying, Housing of Animals- Construction of Animal House- Sanitation- Methods of manure disposal.

Unit-4

Dairy Cattle Feeding- Concentrated- Roughages- Green Fodders- Silage and Pasture- The balanced relations.

Unit-5

Composition of Milk and Reasons for variations clean milk production- Sources of bacterial contamination- Milk and Public Health Physiology of Udder.

Reference Books:

1. Single and Pore, Livestock and Poultry Production, Prentice Hall.
2. Banerjee, G.C., A text Book of Animal Husbandry, Oxford.
3. ICAR, A Hand Book of Animal Husbandry, New Delhi.

4. Wings, J.M., Dairy Cattle Management- Reinhold.
5. Williamson, G., Payre, W.J.A., An Introduction of Animal Husbandry on the Tropics, English Language book society, London.
6. William, W.S, Poultry Management.

Third Year

Fifth Semester

Common Syllabus

Syllabus for all UG Course in fifth Semester

Environmental Studies

Objectives:

1. To understand that Earth is the only planet so far identified with its unique characteristics supporting life- with abundant resources which can fulfill the needs but not the greed's of human beings.
2. To understand that living and non living things are interlinked from micro to macro level as an unbroken chain from sun to soil.
3. To understand that life is diversity makes the life successful, joyful and beneficial and that destroying diversity is destroying humanity.
4. To understand that the exploitative human activity is polluting the environment locally and globally which needs attention and urgent action.
5. To understand that man has to live and progress till the earth survives and hence needs sustainable development to hand over to successive generations.
6. To prepare the individual and the society to face and escape from natural and man made disasters with scientific management and societal involvement.

Plan of Teaching and Evaluation:

Allotted hours: Total 30 hours, 25 hours may be allotted for theory and 5 hours for field study/Report writing/Internal Assessment.

Evaluation Total-100 Marks

External-75 Marks, Internal: Field Trip and Report/ Case Study and Report-10 Marks

Continuous Assessment Test-5 Marks

Seminar/GD/Quiz-5 Marks, Assignment(s)-5 Marks

Syllabus

Unit-1: Earth and its Environment

- a) Earth- Formation and Evolution of Earth over time- Structure of Earth and its components: Atmosphere, Lithosphere, Hydrosphere and Biosphere.
- b) Resources: Renewable and Non Renewable Resources.

Unit-2: Ecology and Ecosystem concepts

- a) Ecology: Definition- Ecosystem: Definition- Structure and Function- Energy flow- Food chain and Food web- One example ecosystem.
- b) Biogeochemical Cycles: Nitrogen, Carbon, Phosphorous and Water.

Unit-3: Biodiversity and India

- a) Introduction- Definition- Values of biodiversity- Threats to Biodiversity- Conservation of Biodiversity.
- b) Biodiversity of India- As a megadiversity nation- Biogeographical distribution- Hot spots of biodiversity- National Biodiversity Conservation Board and Its Function.

Unit-4: Pollution and Global Issues

- a) Definition, causes, effects and control measures of Air, Water, Soil, Marine, Noise, Thermal and Nuclear Pollution.
- b) Global issues: Global Warming and Ozone Layer Depletion.

Unit-5: Development and Disaster Management

- a) Sustainable Development- Sustainable Agriculture- Organic farming, Irrigation- Water harvesting and Waste recycling- Cyber waste and Management.
- b) Disaster Management- Flood Drought- Earthquake and Tsunami- Landslides and Avalanches- Cyclones and Hurricanes- Precautions, Warning Rescue and Rehabilitation.

Reference Books:

1. Agarawal, K.C., 2001, Environmental Biology, Nidi Publication, Ltd, Bikaner.
2. Bharucha Rach, The Biodiversity of India, Publishing, Pvt, Ltd, Ahemedabad-380013, India Email: mapin@icenet.net
3. Brunner, R.C., 1989, Hazardous Westel Incineration, Mcgraw Hill Inc, 480p.
4. Clark, R.S., Marine Pollution Claderson, McGraw Hill Inc. 480p.
5. Cunningham, W.P., Cooper, T.H., Gorhani, E & Hepworth, M.T.2001.
6. De, A.K., Environmental Chemistry, Wiley Eastern Ltd.
7. Down to Earth, Centre for Science and Environmental @.
8. Gleick, H.P, 1993, Water in crisis, Pacitif Institute for Studies in Dev., Environmental & Secirity Stockholm Env. Institute Oxford Univ. Press 473p.
9. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai @.
10. Heywood, V.H & Watson, R.T., 1995 Globi Biodiversity Assessment Cambridge University, Press 1140p.
11. Jadhav, H & Bhosale, V.M 1995 Environmental Protection and Laws, Himalaya Publication House, Delhi, 284p.
12. Mckenney, M.L & Schocl, R.M, 1996, Environmental Science System & Solutions, Web enhanced edition, 639p.
13. Mhaskar, a.k., Matter Hazardous, Techno- Science Publication (TB).
14. Miller, T.G., Jr., Environmental Sciences, Wadsworth Publishing Co., (TB).
15. Odum, E.P., 1971, Fundamentals of Ecology, W.B., Saunders Co, USA, 574p.

16. Rao MN., & Datta, AK., 1987, Waste water treatment Oxford & IBH Publication Co Pvt., Ltd., 345p.
17. Sharma, B.K., 2001, Environmental Chemistry Geol Publication, House, Meerut.
18. Survey of the Environmental, The Hindu (M).
19. Townsend, C., Harper, J., and Michael Begon, Essentials of Iconology, Blackwell Science (TB).
20. Trivedi, R.K., Handbook of Environmental Laws, Rules, Guidelines, Compliancesan and Standards, Vol-1 and 2, Enviro. Media ®.
21. Trivedi, R.K., and P.K., Geol, Introduction to Air Pollution, Techno- Science Publications (TB).
22. Wagner K.D., 1998 Environmental Management W.B., Sauders Co. Philadelphia, USA 499p.

Note: (M)- Magazine, ®- Report, (TB)- Text Book.

Third Year

Fifth Semester

Non Major Elective

Plantation and Medicinal Crops

Objectives:

1. Enable the students to understand the different types of Medicinal crops
2. To give basic knowledge about cultivation of Medicinal crops

Unit-1

Plantation and Medicinal Crops- Introduction- economic importance of Plantation, Spice and Herbal crops- Marketing and Export.

Unit-2

Cultivation Practice- from field preparation to harvest- Post harvest technology- Beverage crops- Coffee- Tea- Cacao suitable soil, climate- Propagation.

Unit-3

Cultivation Practice- from field preparation to harvest- Post harvest technology- Plantation crops- Rubber- Cashew nut- Areca nut, suitable soil, climate- Propagation.

Unit-4

Cultivation Practice- from field preparation to harvest- Post harvest technology- Spices- Pepper- Cardamom- Clove- Suitable soil, Climate- Propagation.

Unit-5

Cultivation Practice- from field preparation to harvest- Post harvest technology- Medicinal Plants- Senna- Periwinkle- Medicinal dioscorea- Suitable soil, Climate- Propagation.

Reference Books:

1. Spices, Plantation crops, Medicinal and Aromatic Plants. By Dr. N. Kumar, et.al, Oxford & IBH.

2. Hand Book of Agriculture- ICAR, New Delhi.
3. Introduction to Agriculture- Dr. N. Kumar, Nagalakshmi Publication, Nagarcoil.
4. Crop Production Techniques of Horticultural Crops- Joint Publication of TNAU and Department of Horticulture and Plantation crops, Govt. of TN.
5. (Tamil) Mooligai Payirgal Sagupadi Martum Vanigam- K. Rajamani, et.al.
6. Swaminathan, M.S. Sustainable Agriculture- Towards Food Security, Konark Publishers, Madras.

Third Year

Sixth Semester

Core Subject

NGOs & SHGs for Rural Development

Objectives:

1. To expose the students to understand about the Voluntary Agencies and Voluntarism in solving the Rural Problems.
2. To impart basic knowledge about NGOs and SHGs

Unit – 1

NGO's - Concept - Meaning, functions and Types – Society – Trust – Associations – Registration Process - NGO's and Social Responsibility Role of NGO's - Characteristics - Strength - Weakness-NGO's and GOS - Interaction – Social Responsibility – Development of Weaker Segments – Social Security

Unit – 2

Role of Non Government Organisation Rural Development – Development of Agriculture, Industry, Health, Education and Infrastructural Development

Unit – 3:

Training and Development in NGOs- Training and Development - Role and Functions of International Funding Agencies - Sustainability – Rural Livelihood Security

Unit – 4

Self Help Groups (**SHGs**)- Concepts and Dimensions – Saving Operations of SHGs – Credits Operation of SHGs – Saving and Credit Programmes of SHGs – SHG Meetings: Weekly, Monthly, Office Bearers, Membership and Account Maintenance

Unit –5

SHGs Promotion Strategy - Stages and Role of NGOs- Revolving Fund – Economic Activities – Social Activities – SHGs and Bank Linkage – Strategy and Methods of SHGs Promotion –Women Empowerment – Employment Generation – Vocational Skill Development

Reference Books

1. Desai, Rural Development: "Organizations and Management" (New Delhi, Concept publishing Co., 1989)
2. Subramanyam, "Rural Development and Voluntarism" (New Delhi, Sage Publication 1992)
3. Muniandi ,K . "Voluntary Agency and Panchayat Raj".(Bangalore and Sanmark 1992)
4. Shah.P. "Voluntarism: Concept and Issue? (New Delhi, sage Publications 1992)
5. Elumali.R, "Rural Development and Management of Voluntary Organization", New Delhi, Vika Publishing co., 1993

Core Subject

Family and Social Welfare

Objectives

1. To impart basic knowledge on Indian family system
2. To provide knowledge about Human Resource Development and Population policy in India

Unit-1

Indian Family System- Family & Society- Social Welfare- Concept- Definitions- Meaning and Importance- Administration- Principles of Social Welfare Administration- Central Social Welfare Board and Sate Social Welfare Board.

Unit-2

Social Groups/Organisation- Target Groups- Farmers Organisations/Associations- - Rural Artisans- Land less labourers- Women SHGs- Children- Community based Organisations- Organisations for SC/ST Welfare .

Unit-3

Human Resource Development (HRD)- Definition- Concept- Strategy and Functions of HRD- Social Welfare and HRD- Problems of HRD in India.

Unit-4

Economic Characteristics of Population- Literacy and Educational Status- Food problems and
- Standard of living and poverty- Unemployment and Social Welfare- Development Programmes.

Unit-5

Population policy in India- Family Planning- Five Year Plans and Family Welfare- - Side Effects- Population Education- Aim and its importance- Role of Rural Development in Social Welafare.

Reference Books:

1. Mabey, C & Salaman, G- Strategic Human Resource Development, New Delhi, Beacon.
2. Rao. T.V., Reading in Human Resources Development, Oxford and IBM, New Delhi.
3. Memoria, C.B., Agricultural Problem of India, Kitap Mahal.
4. Chowdry, PD- Social Welfare Administration, Atma Ram & Sons, New Delhi.
5. Goel. SL & Jin RK- Social Welfare Administration (Vol-1 & 2)
6. Gupta, Ashok- A billion is Enough, New Delhi, IMH Publishers.
7. Narain, Vatsala- India's Population Policy Perspectives in Developing Countries, Himalaya Publishing House.
8. Dr. Hans Raj, "Fundamentals of Demography", (Population) Studies with Special Reference to India) 7-K, Kothapur Road, Kamala Nagar, Delhi-110007.
9. Dr. Chandrasekar, "Studies in Demography", Pinceton George Allen and Unwin.

Third Year**Sixth Semester****Core Subject-****Panchayat Raj Administration****Objectives:**

1. To give basic knowledge about Panchayat Raj System in India
2. To enable students to understand community development in rural area

Unit-1

Community Development- Meaning Definition- Purpose- Philosophy- Objectives- Principles - Evaluation of Community Development Programme in India- Self Sufficiency- Decentralised Administration- Village Swaraj

Unit-2

Local Government- Meaning- Definition and Scope of Local Government- Evolution of Panchayat Raj Institutions in India- Balwantrai Mehta Committee Report- Ashock Mehta Committee Report- Directive Principles of State Policy- Fundamental Rights

Unit-3

Panchayat Raj System- Types of Local bodies- Structure of Rural local Government- New Panchayat Raj Act- Constitution 73rd Amendment- Salient Feature- Three Tier System- Village Panchayats- Panchayat Union- Zilla Panchayat- Election pattern, Financial Resources from Various Institutions- Income and Expenditure- Powers and Functions.

Unit-4

Gram Sabha- Its Functions- Importance- Staffing Pattern- Decentralizations of Power- Role of BDO- DBDOs- Extension officers- Duties and Responsibilities- Training at SIRD- NIRD- Official and Non official relationship.

Unit-5

Evaluation- Achievements and Problems of Panchayati Raj Institutions in Tamil Nadu- - Role of Panchayat Raj System in Rural Development- Role of SC, ST and Women in New Panchayat Raj System- Integrated Rural Development and Alleviation of Poverty

Reference Books:

1. Bhatnagar, S- Rural Local Government in India, New Delhi, Light and Light Publishers.
2. Harichandran, C- Panchayati Raj and Rural Development, Concept Publishers, New Delhi.
3. Mishra, S.N- Poverty Alleviation Programmes and Gram Panchayats, Mittal Publishers, New Delhi.
4. Palanithurai, G- Empowering People Issues and Solutions, Kanishka Publishers, New Delhi.
5. Dey, S.K., "Panchayatraj", Asia Publishing House, 1962.
6. Gaiward, V.R., "Panchayat and Bureaucracy", National Institute of Community Developemt, Hyderabad.
7. Saraswathi, S. The Madras Panchayat System, Vol-1 Impex India, Delhi, 1973.
8. Shriram Maheshwari, Local Government in India, Indian Press Private Limited, 36, Pannalal Road, Allahabad.
9. Sathiyasundaram, I- Rural Development in India.

Third Year**Sixth Semester****Subject Elective****Poultry Science****Objectives:**

1. To give basic knowledge about Poultry farm
2. Enable the students to understand the Problems in Poultry.

Unit-1

Planning a Poultry Farm both as a sideline and full time commercial venture. Breeds of Poultry- Pure lines- Cross breeds- Hybrids Broiler Production- Structure of Egg and Formation of Egg- Reproductive organs in hen and Sexing of Chickens.

Unit-2

System of Poultry keeping- Housing system of Poultry- Open range- Deep litter system and Laying eggs and Batteries equipment in Poultry Housing.

Unit-3

Incubation of eggs- Breeding Chickens Hatching the Egg- Selection and care of hatching egg Management of Incubators- Rearing Young Stock- Culling Poultry- Identification Layer and Non Layer birds.

Unit-4

Feeding Poultry Principles- Feeding system and Feeding Methods- Greens in Poultry feeds- Modern feed additives for Poultry.

Unit-5

Diseases- Problems in Poultry, Basic knowledge of common disease- Control of disease- Vaccination Programme- Cleaning Poultry.

Reference Books:

1. Singh and More, Livestock and Poultry Production, rentice Hall.
2. Banerjee, G.C., A Text Book of Animal Husbandry, New Delhi.
3. J.C.A.R., A Hand Book of Animal Husbandry, New Delhi.
4. Winstar, Dairy Cattle Management, Reinhold.
5. Williamsan, G., and Payre, W.J.A., AN Introduction to Animal Husbandry in the Tropics, English Language Book Society, London.

Third Year

Sixth Semester

Value Education

Common Syllabus (Total Hours: 30 (2 hours per week) (Semester vi)

Objectives:

1. To sensitize the student towards value formation.
2. To deepen the understanding, motivate and take responsibility with regard to making positive personal and social choices.
3. To inspire individuals to choose their own personal, social, moral and spiritual values and be aware of practical methods for developing and deepening them.

Unit-1 Values and the Individual

Values Meaning- The significance of Values- Classification of values- Need of value Education- Values and the individual: Self Discipline, Self Confidence, Self Initiative, Empathy, Compassion, Forgiveness, Honesty and Courage.

Unit-2 Values and Religion

Karmayoga in Hinduism- Love and Justice in Christianity- Brotherhood in Islam- Compassion in Buddhism- Ahimsa in Jainism and Courage in Sikhism- Need for Religious Harmony.

Unit-3 Vales and Society

Definition of Society- Democracy- Secularism- Socialism- Gender Justice- Human Rights- Social- Political Awareness- Social Integration- Social Justice.

Unit-4 Professional Values

Definition- Accountability- Willingness to learn- Team Spirit- Competence Development- Honesty- Transparency- Respecting Others- Democratic Functioning- Integrity and Commitment.

Unit-5 Role of Social Institution in Value Formation

Role of Family- Peer group- Society- Educational Institution- Role of Models and Mass Media in Value Formation.

Reference Books:

1. Subramanyam, K, Values in Education, Madurai, Ramana Publication, 1995. Doss, A.G., Indian Social Institution, Delhi, Forward Publishing Company, 2000.

2. Joseph, K.P., E.D., Peace and Value Education: A creative Response to Consumerism and Communalism, Hyderabad: National Institute of Peace and Value Education, 2003.
3. Bedi Kiran, What Went Wrong... and Continues, Delhi, UBS Publishers and Distributors Pvt. Ltd, 2005.
4. Tagore Rabindranath, Personality, New Delhi: Macmillan India Ltd.
5. Sekar, Vincent, Quest for Harmony: An Anthology of Religious in Dialogue, Bangalore: Claretian Publications, 2001.

Third Year

Sixth Semester

Non Major Elective

Rural Development Project Planning & Evaluation

Objectives: To impart knowledge to formulate rural project planning, monitoring and Evaluation.

Unit- 1

Rural Development Project- Concept- Definitions- Methods- Process and Resource mobilization- Project Formulation- Implementation- Monitoring – Objective- Target Oriented.

Unit – 2

Rural Development Project Planning— Concept – Definitions – Functions – Principles of Management – Relevance of Project Management – Role of Different Organisations – Government – NGOs- Qualitative Information for Project Planning

Unit 3

Information System – Data Collection – Storage Processing - Recording and Reporting- - Feasibility standards - Practical Procedure - Political Viability and Cost Effectiveness: Propriety Standards - Human Interactions - Systematic data Control and Information.

Unit- 4

Rural Development Project Evaluation- Identifying and Selecting the Evaluation Issues and Criteria - Information Collection - Analysis and Interpretation and developing Management plan for evaluation.

Unit-V: Impact Assessment

Evaluation and Justified Conclusion - Reporting-- Interpreting Evaluation - Participatory Evaluation - Impact Assessment.

Reference Books

1. Satyasundaram. L, "Rural Development, Himalaya Publishing Company, 2018
2. Nanda.S.K, " Project Planning & Management" National Institute of Rural development, Hyderabad, 2015.
3. Charless C. Martin, "Project Management - How to make it work", Amacom Division of American Management Association, (2016).
4. Sandy Coirncross, et.al., "Evaluation Rural Development Projects," John Wiiiiey & Sons, 2005.

Third Year

Sixth Semester

**Extension Education
Third Year- Practical's**

Fifth Semester & Sixth Semester

University Practical Exams will be conducted at the end of the third year in the Sixth Semester on 60:40 basis.

Practical-6

Study of Rural Social Problems, Rural Co-operative Societies.

Observation Visits to:

MDDC Bank, State Social Welfare Board, Centre for Rural Development Annamalai University

Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce.

Practical-7

Study of Human Rights Violation, Small Family Norms, Family Welfare Programmes.

Observational Visits to:

Women SHG, NGOs DRDA, DDO

Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce.

Practical-8

Study of Rural Development Programmes, Panchayat Raj Administration.

Observational Visits to:

NIRD- Hyderabad, Women SHG, NGOs, DRDA and Panchayat Union offices.

SIRD- Chennai, Rural University- Gandhigram, RETC.

SSA- Education for all- Identification drop-outs- Counselling

Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce.

Practical-9

Study of Veterinary Centres, Aavin Milk, Poultry Farms.

Observational Visits to:

NDRI Bangalore, TAPCO, Agricultural College and Research Centres

Identification, Short Notes, Written Test, Field Work, Field Visit, Record Writing, Submission and Periodical Evaluation including Oral Test- Vivo Voce