



West Bengal State University
Department of Rural Studies
Program: Master of Rural Studies (MRS)
Duration: 2 Year Postgraduate Programme
Draft Syllabus under NEP Curriculum Framework
Effective from the Academic Session 2026-27

Structure

Two year Post graduate Programme in Rural Studies (Master of Rural Studies)

| Courses | No. of Courses | Credits | Marks |
|--|-----------------------|----------------|----------------------|
| Core Courses: | | | |
| i. Theory | 12 | 12X4=48 | 12 × 50 = 600 |
| ii. Practical | 02 | 2X4= 8 | 2 × 50 = 100 |
| iii. Mixed | 03 | 3X4=12 | 3 × 50 = 150 |
| iii. Internship & Dissertation / Research Project | 02 | 2X4=8 | 2 × 50 = 100 |
| Subtotal (Core Courses) | 19 | 76 | 950 |
| Discipline Specific Elective (DSE) | 2 | 2X4=8 | 2 × 50 = 100 |
| Ability Enhancement Course (AEC) | 1 | 2 | 1 × 50= 50 |
| Skill Enhancement Course (SEC) | 1 | 2 | 1 × 50= 50 |
| TOTAL | 23 Courses | 88 | 1150 |

Semester wise Syllabus structure

| SEMESTER-I | | | | |
|---|---------------------------|----------------------|---------------|--------------|
| Course | Code | Type | Credit | Marks |
| Fundamentals of Rural Development and Experiments | MRS2P COR01T | Core (Theory) | 4 | 50 |
| Rural Economy in India | MRS2P COR02T | Core (Theory) | 4 | 50 |
| Rural Finance and Banking | MRS2P COR03T | Core (Theory) | 4 | 50 |
| Fundamentals of Agriculture and Animal Husbandry | MRS2 PCOR04T | Core (Theory) | 4 | 50 |
| Rural Socio-Economic Structure and Farm Economy Study | MRS2 PCOR05P | Core (Practical) | 4 | 50 |
| ICT and Digital Applications in Rural Development | MRS2PAE C01M | AEC | 2 | 50 |
| SEMESTER-II | | | | |
| Course | Code | Type | Credit | Marks |
| Rural Governance, Panchayati Raj and NGO Management | MRS2P COR06T | Core (Theory) | 4 | 50 |
| Rural Society and Rural Culture | MRS2PCO R07T | Core (Theory) | 4 | 50 |
| Globalization and Rural Livelihood | MRS2PCO R08T | Core (Theory) | 4 | 50 |
| Entrepreneurship Development and Rural Marketing | MRS2PCO R09T | Core (Theory) | 4 | 50 |
| Rural Health, Sanitation and Community Wellbeing | MRS2PCO R10M | Core (Mixed) | 4 | 50 |
| SEMESTER-III | | | | |
| Course | Code | Type | Credit | Marks |
| Qualitative Methodology for Rural Research | MRS2P COR11T | Core (Theory) | 4 | 50 |
| Quantitative Research Methods and data analysis techniques | MRS2P COR12M | Core (Mixed) | 4 | 50 |
| Project Management and Appraisal | MRS2P COR13T | Core (Theory) | 4 | 50 |
| Practical: Village Study: Secondary data & Qualitative Research Techniques | MRS2P COR14P | Core (Practical) | 4 | 50 |
| Discipline Specific Elective (DSE): (Any One) 1. Disaster Studies I 2. Sustainable Agriculture and Crop Production Techniques 3. Rural Tourism and Value Addition to | MRS2P DSE01T -A/B/C | Elective (Theory) | 4 | 50 |

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|--|---------------------------|----------------------|---------------|--------------|
| Communities | | | | |
| Application of GIS and GPS in Rural Studies | MRS2P SEC01M | SEC | 2 | 50 |
| SEMESTER-IV | | | | |
| Course | Code | Type | Credit | Marks |
| Women, Rural Development and Indian Knowledge System | MRS2P COR15T | Core (Theory) | 4 | 50 |
| Natural Resource and Environment | MRS2P COR16T | Core (Theory) | 4 | 50 |
| Extension Education and Communication | MRS2P COR17M | Core (Mixed) | 4 | 50 |
| Discipline Specific Elective (DSE): (Any One) 1. Disaster Studies II 2. Sustainable Agribusiness Management 3. Rural Culture, Heritage and Tourism Development in West Bengal | MRS2P DEC02T -A/B/C | Elective (Theory) | 4 | 50 |
| Internship | MRS2P COR18P | Internship | 4 | 50 |
| Dissertation | MRS2PCOR 19P | Dissertation | 4 | 50 |

1. Each course is of 4 credits (with the exception of AEC & SEC). Each course will be covered within 56 to 60 hours of teaching spread over 15 weeks. The total credit points covered in this entire Programme for the 2-year PG is 88.

The syllabus for all four semesters is for a 2 Year PG degree (Master of Rural Studies).

2. Internal Assessment on the Theoretical papers shall be evaluated by all the teachers regularly by conducting Class Tests/Mid-Term Tests/Presentations/ assignments, the marks of which shall be a part of the examination system.

3. The End Semester Examination of Theoretical papers shall be of 40 marks. Questions will be set from each of the four units, with a question pattern of 10 marks that can have a break-up. Each student has to attempt one question from each unit.

- The Practical courses will have continuous evaluation, followed by a Viva Voce at the end of the semester examination conducted by the external examiner concerned.
- Mixed courses designated as (T3+P1) will be evaluated with a 35-mark theory component and a 15-mark practical component. The theory portion will include a 10-mark in internal assessment and 25 marks in the end-term examination.

- For mixed (T2+P2) courses, evaluation will consist of 25 marks for theory and 25 marks for practical components. The 25-mark theory examination will have a duration of 1 hour and 30 minutes in the end term. No internal theory examination will be conducted for these courses. Practical components will be assessed through continuous evaluation and an end-term viva voce, each allocated 20 and 5 marks, respectively.

For mixed courses, the 25-mark theory paper in the end-term will consist of five-mark questions. Students must answer five out of eight questions, covering all units.

4. The medium of instruction is English, and the answers are to be written/ presented in English.
5. Dissertation work will focus on rural development or related issues. Each student will prepare a dissertation report on a chosen theme under the supervision of a departmental faculty member. The report will be continuously evaluated by the internal faculty, while the external examiner will assess the final presentation on an 80:20 basis.
6. The participation certificate for the Internship Programme will be issued by the organizer or institute upon each student's completion. Students will be evaluated on the internship by internal faculty and the host organization on an 80:20 basis.

The **aim** of this Master of Rural Studies (MRS) program is to contribute in the development of rural life through a strong group of young professionals who have academic theoretical knowledge, practical skill and capability to use the best available practices.

Specific Objectives of the Program:

1. To prepare theoretically sound and socially sensitive researchers who would part take in impactful policy research;
2. To serve as a national and regional hub of knowledge connectivity for rural development;
3. To support developmental plans and policies for rural development by research, training and demonstration, extension and institutional linkages
4. To facilitate the development of techno-managerial cadres needed for the rural development.
5. To impart knowledge on various governance structures comprising state, market, civil society and community and their implications on the livelihoods, especially of the poor
6. To expose students while engaging in experiential learning to internalize rural environs, institutions and initiatives
7. To create special workforce towards leadership, entrepreneurship, agri-preneurship, extension professions for development of rural life.

Learning Outcome

At the end of the course the students of Rural Studies can obtain the following outcomes:

- Act as a rural development expert who can contribute to develop policies and programs for betterment of rural life.
- Can analyze and interpret the short and long-term trends in the rural sector in general and the agrarian sector in particular
- Impart improved technologies to the rural household members.
- Develop skills to understand the social, economic, political and cultural framework of the rural society
- Develop skills to address the challenges with suitable responses for the identified rural issues
- Develop skills to manage/evaluate farm business, projects, rural enterprises
- Act as an administrator or management professional in different rural development Projects, Programmes, Schemes, Agencies etc.
- Can work as social and developmental technocrats towards the development of rural areas.
- Can involve in advanced social science research activities/projects.
- Develop entrepreneurial skills which ensures positive outcome towards rural transformation.

SEMESTER-I

CORE COURSE (Theory) – 1:(MRS2PCOR01T)Fundamentals of Rural Development and Experiments (50 marks;4 Credits)

This course seeks to deliver an overview of the basic concepts in rural development. It also provides insights from rural development experience from different parts of India through a temporal lens for the understanding their evolution.

Outcome: This is the entry point to rural studies course and gives the basic background.It seeks to impart an understanding of the evolution of rural development as a separate niche within the larger growth and development paradigm. Insights from the different projects and programmes concerning rural development would enable a better understanding of the temporal shifts in focus for rural development.

| Unit | Topic |
|------------|--|
| I | Introduction to Development |
| 1.1 | Concepts of economic growth and Economic development: measures and indicators. |
| 1.2 | Concept of Social development; Interdependence of economic and non-economic factors. Amartya Sen's Concept of Development, Concept of Human Development, Human Development Index. Sustainable development. |
| 1.3 | The Third World: concept and characteristics. |
| 1.4 | Theories of development in the context of rural-urban linkages: The Labour Surplus Theory, Theory of Cumulative Causation, Growth Pole Theory, Rostow's stages of economic growth. |
| II | Rural Development Concepts |
| 2.1 | Designation of rural areas, Importance of rural areas. Functional dichotomies between rural and urban. |
| 2.2 | Concept of RuralDevelopment: Principle, indicators, objectives, measures & determinants. |
| 2.3 | Rural development components in the SDGs and MDGs; Greening rural development in India |
| 2.4 | Inclusive rural development (social, financial, technical, institutional). Sustainable rural development. |
| III | Concepts and Approaches to Rural development in India |
| 3.1 | Pre-independence:Gandhian and Tagore's Approaches to Rural Development &Experiments.Rural development experiments in India |
| 3.2 | Post Independence: Broad based Approach, Sectoral Approach, Service Centre Approach, Target Group Approach, Development with social justice Approach, Minimum Needs Approach |
| 3.3 | Area specific approach / Backward area development :Case studies from West Bengal : Border Area, Drought Prone Area, Hill Area , Coastal area |

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|-----------|---|
| 3.4 | Rural Livelihood Approach: Past & present flagship programmes; Rural Development/Welfare Programmes, PURA, MGNREGA, post 2015: NITI Ayog. |
| IV | Target Population Development Policies and Programmes in India |
| 4.1 | Child Development Programmes: Need for such programme, Development policies and programmes |
| 4.2 | Elderly Development Programmes: Need for such programme, Development policies and programmes |
| 4.3 | Women Development Programmes: Need for such programme, Development policies and programmes; SHGs and women empowerment |
| 4.4 | Third Gender Development Programmes: Need for such programme, Development policies and programmes |

Suggested Readings:

1. Rural Development Harriss, J. (1982). *Rural Development: Theories of Peasant Economy and Agrarian Change*. London: Hutchinson University Library.
2. Rural Development Sundaram, I.S. (2017). *Rural Development*. Mumbai: Himalaya Publishing House.
3. Fundamentals of Rural Development Desai, V. (2019). *Fundamentals of Rural Development*. Mumbai: Himalaya Publishing House.
4. Rural Development: Principles, Policies and Management Singh, K. & Singh, A. (2016). *Rural Development: Principles, Policies and Management* (3rd ed.). New Delhi: Sage Publications.
5. Rural Development in India: Past, Present and Future Desai, V. (2018). *Rural Development in India: Past, Present and Future*. Mumbai: Himalaya Publishing House.
6. Rural Development: Concept and Recent Approaches Paul, S.K. (2015). *Rural Development: Concept and Recent Approaches*. New Delhi: Concept Publishing Company.
7. Handbook of Rural Development Green, G.P. (Ed.). (2014). *Handbook of Rural Development*. Cheltenham, United Kingdom: Edward Elgar Publishing.
8. Growth and Development Thirlwall, A.P. (2007). *Growth and Development with Special Reference to Developing Economies* (8th ed.). New Delhi: Palgrave Macmillan.
9. Rethinking Rural Development Ashley, C. & Maxwell, S. (2001). "Rethinking Rural Development." *Development Policy Review*, 19(4), 395-425.

CORE COURSE (Theory) – 2 :(MRS2PCOR02T): Rural Economy in India

(50marks;4 Credits)

This course seeks to detail the different facets of the rural economy including demographic dynamics, labour market scenario, poverty as well as rural infrastructure. Besides providing the insights on distribution patterns, this course also attempts to link the policy context explicitly to explain how and why the disparities evolve.

Outcome: This course sets the context for introducing the complexities of rural reality. Deconstructing the rural economy into farm and non-farm would enlighten the nuanced social reality.

| Unit | Topic |
|----------|---|
| I | Agricultural and non-agricultural sectors within the rural economy |
| 1.1 | Structure, attributes and components of the agricultural & non-agricultural sectors within the rural economy. |

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|------------|---|
| 1.2 | Structural change of the rural economy and its importance for rural development. Growth of rural non-farm sector. |
| 1.3 | Rural industries in India and its regional variations. |
| 1.4 | Problems of rural industries in India- organisational, financial, technical, personnel, managerial, marketing and information. |
| II | Indian Agricultural Sector |
| 2.1 | Role of agriculture in rural development in India. |
| 2.2 | Strategies for agricultural development: Land reforms ,Green revolution, New Technologies (GM etc). Farm size and productivity relationship; recent paradigm of small farm sector led rural development strategies; Bringing green revolution to Eastern India(BGERI) |
| 2.3 | Women in agriculture. Feminization of agriculture. |
| 2.4 | Economic liberalization and Indian agriculture. Agricultural Policy in India |
| III | Rural Demography and labour |
| 3.1 | Rural demography: Structure, composition and attributes of rural population. |
| 3.2 | Rural poverty: concept, measurement & effects; “Deprivation trap” and the rural poor. Policies for rural poverty alleviation. Concept of Multi dimensional poverty in rural areas |
| 3.3 | Rural labour: rural labour market issues and employment; rural wages; Agricultural labour and social security; Role of the National Commission for Rural Labour |
| 3.4 | Labour migration and its implications. Labour policies relevant for rural labour in India |
| IV | Rural Social Sectors & Infrastructure |
| 4.1 | Rural Infrastructure and basic services development policies in India. PURA (Providing Urban Amenities to Rural Areas) and Model Village. Rural Infrastructure Development Fund (RIDF) |
| 4.2 | Rural roads, Transport & Communication, Rural electrification |
| 4.3 | Health and education. Human development |
| 4.4 | Rural housing, Drinking water & Sanitation |

Suggested Readings:

1. The New Economics of Growth Mellor, J.W. (1976). *The New Economics of Growth: A Strategy for India and the Developing World*. Ithaca and London: Cornell University Press.
2. Non-Agricultural Employment in India Visaria, P. & Basant, R. (1994). *Non-Agricultural Employment in India: Trends and Prospects*. New Delhi: Sage Publications.
3. India Rural Development Report 2012-13 IDFC Rural Development Network. (2013). *India Rural Development Report 2012–13*. Hyderabad: Orient Blackswan.
4. Agricultural Economics Gupta, P.K. (2018). *Agricultural Economics*. New Delhi: CBS Publishers & Distributors.
5. Selected Readings in Rural Economics Carver, T.N. (2012 reprint). *Selected Readings in Rural Economics*. New Delhi: Agri-Biovet Press.
6. Advanced Economic Theory Ahuja, H.L. (2020). *Advanced Economic Theory: Microeconomic Analysis*. New Delhi: S. Chand Publishing.
7. Handbook of Rural Economy in India Jodhka, S.S. (2015). *Handbook of Rural Economy in India*. New Delhi: Oxford University Press.
8. Women in Agriculture Punia, R.K. (Ed.). (2006). *Women in Agriculture*. New Delhi: Northern Book Centre.

CORE COURSE (Theory) -3 :(MRS2PCOR03T) :Rural Finance and Banking
(50 marks;4 Credits)

The objective of the course is to expose students to the financial systems and accounting procedure and to key issues linked to rural financial system and accounting procedure of different financial institutions. It also discusses the initiatives of the Government for inclusive financial system. It also offers the hands –on- skills in preparing financial statements of a rural enterprise.

Outcome: The course exposes the students to the rural credit structure, Banking and accounting procedure.

| Unit | Topic |
|------------|---|
| I | Rural Credit |
| 1.1 | Rural Finance: Concept, Significance, Rural Credit, limitations, Debt Trap |
| 1.2 | Agricultural Credit- types, relevance |
| 1.3 | Rural Credit Sources-institutional and non institutional |
| 1.4 | Govt. and non-Govt. Initiatives towards development of rural financial sector. |
| II | Microfinance and SHGs |
| 2.1 | Microfinance: Concept, importance, History of microfinance in India. Microfinance Institutions- types, development, working principles, Different Models. |
| 2.2 | Financial Inclusion-concept, role of Microfinance towards Financial Inclusion, Microfinance in rural development. |
| 2.3 | SHG-Concept, principles, significance of group approach, stages of development, SHG performance assessment, concept of revolving fund |
| 2.4 | SHG-Bank linkages, Income generation through SHG;SHGs& Microfinance. |
| III | Banks and Cooperative credit |
| 3.1 | Cooperatives- Concept, Cooperative credit in India, Cooperative movement in India, Working principle of cooperatives. |
| 3.2 | Types of Cooperatives in India, PACS-concept, function, role in rural development |
| 3.3 | Regional Rural Bank(RRB)-Concept, Function, Structure |
| 3.4 | Commercial Banks, Nationalized Banks, Difference between RRB and Commercial Banks, Role of RRB in rural development |
| IV | Accounting |
| 4.1 | Accounting:Concept, Definition, single and double entry system, journals, ledger accounts, cash book & current balance sheet |
| 4.2 | Cost classification, cost sheet, Opportunity cost |
| 4.3 | Cash flow analysis, NPV, BCR, budgetary control |
| 4.4 | Panchayat accounting and Accounting of small enterprises |

Suggested Readings:

1. Rural Banking in India Tannan, M.L. (2018). *Banking Law and Practice in India*. New Delhi: India Law House.

2. Agricultural Finance and Management Reddy, S.S. & Raghu Ram, P. (2019). *Agricultural Finance and Management*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
3. Microfinance in India Karmakar, K.G. (2017). *Microfinance in India*. New Delhi: SAGE Publications.
4. Self Help Groups and Microfinance Rao, M. (2016). *Self Help Groups and Microfinance*. New Delhi: Anmol Publications.
5. Cooperative Movement in India Bedi, R.D. (2015). *Theory, History and Practice of Cooperation*. New Delhi: International Publishing House.
6. Financial Management Pandey, I.M. (2021). *Financial Management*. New Delhi: Vikas Publishing House.
7. Accounting for Management Maheshwari, S.N. & Maheshwari, S.K. (2020). *Accounting for Management*. New Delhi: Vikas Publishing House.
8. National Bank for Agriculture and Rural Development NABARD. (2021). Reports and Manuals on SHGs, Rural Credit and Financial Inclusion.

CORE COURSE (Theory): – 4 (MRS2PCOR04T): Fundamentals of Agriculture and Animal Husbandry (50 marks; 4 credits)

The course seeks to deliver an overview of the agricultural components of rural development. It will also offer the holistic ideas about the rural farm sector and the economic contribution of the agricultural sector in Indian economy. This course also introduces the common agricultural practices that operate with the existing modern technologies.

Outcome: The knowledge on agricultural science, modern agricultural technologies will be developed. Students will acquire knowledge on region based agricultural practices.

| Unit | Topic |
|------------|---|
| I | Concept of Agricultural Sciences |
| 1.1 | Agricultural Science in the context of India, importance of agriculture in rural economy, Allied sectors of agriculture. Sustainable agricultural development |
| 1.2 | Agro- Climatic Zones in India and West Bengal |
| 1.3 | Allied sectors of agriculture, Governmental Agricultural Departmental Structure in West Bengal –working principles |
| 1.4 | Agricultural developmental programmes in India, HYVP and GM seeds. |
| II | Soil and Crops |
| 2.1 | Soil profile: Physical, Chemical and Biological and Thermal texture; Soil Organisms; Fertilizers-types, Inorganic and organic fertilizers. |
| 2.2 | Crop classification: Major crops, Concept of Floriculture & Horticulture, Different types of Horticulture crops |
| 2.3 | Crop Production: Cropping pattern, Crop rotation, Mixed cropping |
| 2.4 | Basic technology related to Agriculture – Integrated Nutrient Management System, Integrated Pest Management |
| III | Animal Husbandry Practices |
| 3.1 | Animal Husbandry – Concept, Scope & Importance in the context of Rural Development. Animal husbandry practices in India |
| 3.2 | Livestock Production – concept and importance in the rural economy |
| 3.3 | Dairy and Goatary management, Disease control and post production technology |

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| 3.4 | Poultry, Duck production & management, Disease control and post production technology |
| IV | Fishery and alternative farming |
| 4.1 | Fishery- concept, importance in rural economic development; Types of fish farming, Inland Fishery cultivation. |
| 4.2 | Sericulture-Concept, importance. Present status of Sericulture and role of sericulture in textile industries in India |
| 4.3 | Bee keeping-Concept and economic importance, Hives. |
| 4.4 | Integrated Farming: Concept, models, economic and environmental importance |

Suggested Readings:

1. Handbook of Animal Husbandry Indian Council of Agricultural Research (ICAR). (2013). *Handbook of Animal Husbandry*. New Delhi: ICAR Publications.
2. Handbook of Animal Husbandry Extension Goswami, A. (2016). *Handbook of Animal Husbandry Extension*. New Delhi: Agrotech Publishing Academy.
3. Handbook of Agriculture Indian Council of Agricultural Research (ICAR). (2020). *Handbook of Agriculture*. New Delhi: ICAR Publications.
4. Handbook of Horticulture Indian Council of Agricultural Research (ICAR). (2019). *Handbook of Horticulture*. New Delhi: ICAR Publications.
5. A Textbook of Soil Science Das, D.K. (2014). *A Textbook of Soil Science*. New Delhi: Kalyani Publishers.
6. Agronomy Singh, S.S. (2018). *Agronomy*. New Delhi: Kalyani Publishers.
7. A Textbook of Animal Husbandry Banerjee, G.C. (2017). *A Textbook of Animal Husbandry*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
8. A Handbook of Organic Farming Sarma, A.L. (2015). *A Handbook of Organic Farming*. Jaipur: Agrobios Publications.
9. A Handbook of Poultry Practice Wilson, R. (2012). *A Handbook of Poultry Practice*. New Delhi: CBS Publishers & Distributors.
10. Fish Processing and Preservation Cutting, C.L. (2014). *Fish Processing and Preservation*. New Delhi: Agrobios Publications.
11. Milk and Milk Products Winton, A.L. & Winton, K.B. (2013). *Milk and Milk Products*. New Delhi: CBS Publishers & Distributors.
12. Organic Farming for Sustainable Agriculture Dahama, O.P. (2016). *Organic Farming for Sustainable Agriculture*. Jaipur: Agrobios Publications.
13. Techniques and Management of Field Crop Production Rathore, P.S. (2011). *Techniques and Management of Field Crop Production*. Jodhpur: Agrobios Publications.
14. Vermicomposting for Sustainable Agriculture Gupta, P.K. (2014). *Vermicomposting for Sustainable Agriculture*. New Delhi: Narendra Publishing House.

CORE COURSE (Practical): – 5 (MRS2PCOR05P):Rural Socio-economic Structure and Farm Economy study (50 marks; 4 credits)

The objective of this practical course is to introduce the students to rural environment so that they are able to acquire first hand experience of working in the villages. It is extremely important to undertake field visit to a village as well as a farm to enable the students to have a comprehensive understanding of how the rural economy operates. It seeks to develop students' skills in data collection, observation, report preparation, cost-benefit analysis, and laboratory practices related to agriculture and rural development.

Outcome:After completion of the course, students will acquire practical knowledge regarding livestock farming, farm business analysis, cost-benefit accounting, and soil testing methods. Students will develop skills in preparing field reports, laboratory notebooks, and fertilizer recommendations based on soil analysis.

| Unit | Topic |
|------------|---|
| I | Visit to a Village to understand Rural Social Structure and Norms |
| 1.1 | Data collection : secondary sources from the village |
| 1.2 | Data collection : primary sources quantitative data through a brief questionnaire |
| 1.3 | Data collection primary qualitative data through visual observation |
| 1.4 | Preparation of Report on Rural Social Structure and Norms |
| II | Visit to Dairy and/or other Livestock Farms |
| 2.1 | Data collection : secondary source from concerned farm |
| 2.2 | Data collection : primary sources: quantitative data through a brief questionnaire |
| 2.3 | Data collection primary sources of qualitative data through visual observation |
| 2.4 | Preparation of Report on Rural Dairy and/or other Livestock Farms |
| III | Preparation of cost-benefit accounting of an Agricultural farm |
| 3.1 | Visit to a farm and enquire about business operations, procedures, input used, production, market, income, expenditure and profit |
| 3.2 | Capital sources of the operation with details on investment |
| 3.3 | Analysis of the NPV of profit and Cost-benefit of the farm |
| 3.4 | Preparation of Report on cost-benefit accounting the Agricultural farm |
| IV | Soil testing |
| 4.1 | Visit to agricultural field to collect soil and prepare soil for testing |
| 4.2 | Test soil Primary macro nutrients (N,P,K) and soil pH, Organic carbon using kit method |
| 4.3 | Recommend fertilizer dosage based on soil testing |
| 4.4 | Prepare laboratory note book |

Suggested readings:

1. Research Methodology Kothari, C.R. & Garg, G. (2019). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers.
2. Indian Rural Society Dube, S.C. (2017). *Indian Rural Society*. New Delhi: National Book Trust.
3. Handbook of Animal Husbandry Indian Council of Agricultural Research (ICAR). (2013). *Handbook of Animal Husbandry*. New Delhi: ICAR Publications.
4. Farm Management Raju, V.T. & Rao, D.V.S. (2016). *Farm Management*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
5. Agricultural Economics Sadhu, A.N. & Singh, A. (2020). *Agricultural Economics*. Mumbai: Himalaya Publishing House.
6. A Textbook of Soil Science Das, D.K. (2014). *A Textbook of Soil Science*. New Delhi: Kalyani Publishers.
7. Practical Soil Science Kumar, K.R.D. (2016). *Practical Soil Science*. New Delhi: Scientific Publishers.
8. Handbook of Agriculture Indian Council of Agricultural Research (ICAR). (2020). *Handbook of Agriculture*. New Delhi: ICAR Publications.

**AECC: (MRS2PAEC01M)- ICT and Digital Applications in Rural Development
(50 marks; 2 credits)**

The main objective of the course is to impart knowledge of different ICT components and their role in rural development. The course has also elaborated different procedures to implement different tools of ICT for rural development. Students will get an idea of different components of ICT. The course incorporates a training module on use of ICT including software packages for analysis of data.

Outcome: Students will be able to use these components in various fields like research, e-governance, agriculture, health, economic development, financial management and marketing.

| Unit | Topic |
|--------------------------------------|---|
| Theory – 1 credit ,25 marks | |
| I | Computer Application |
| 1.1 | History of Computers, Computer Hardware and External Peripherals. Computer memory, Computer Software. |
| 1.2 | Computer Networking and Internet Technology |
| 1.3 | Uses of Ms-word, Ms – Excel and Ms- PowerPoint |
| 1.4 | Data representation in Computer. |
| II | ICT in Rural Development |
| 2.1 | ICT in Rural Development: concept, advantages;ICT enabled projects in India. |
| 2.2 | Important areas of rural development through ICT |
| 2.3 | E-Governance.-concept, benefit, limitations |
| 2.4 | ICT enabled projects in India.(Some case studies) |
| Practical –1 credit, 25 Marks | |
| III | Uses of Application of Software |
| 3.1 | Use of MS Office- application and input of data inMS Word, MS Excel, MS Power point |
| 3.2 | Use of data analysis tools of MS Excel |
| 3.3 | Preparing of graphs and chartswith labeling and legend |
| 3.4 | Procedure of preparing a ppt presentation and practical utilizations of MSWord |
| IV | Data Representation |
| 4.1 | Use of Epi-Data form and data entry |
| 4.2 | Data representation |
| 4.3 | Data reduction and transformation |
| 4.4 | Use of basic data analysis tools and preparation of Report |

Suggested Readings

1. Sinha, P.K., & Sinha, Priti (2010). *Computer Fundamentals* (6th ed.). New Delhi: BPB Publications.
2. Norton, Peter (2007). *Introduction to Computers* (6th ed.). New Delhi: Tata McGraw-Hill Education.
3. Rajaraman, V. (2018). *Fundamentals of Computers* (6th ed.). New Delhi: PHI Learning Pvt. Ltd.
4. Sharma, D.D. (2012). *Information and Communication Technology for Rural Development*. New Delhi: Sarup Book Publishers.
5. Bhatnagar, Subhash (2004). *E-Government: From Vision to Implementation – A Practical Guide with Case Studies*. New Delhi: Sage Publications India Pvt. Ltd.

SEMESTER-II

CORE COURSE (Theory): – 6 (MRS2PCOR06T): Rural Governance, Panchayati Raj and NGO Management (50 marks; 4 credits)

The course is designed to give a comprehensive knowledge on rural governmental planning mechanism and administration in India. The understanding of the rural delivery system of local governance in India will create awareness among them through the redressal mechanisms. The course also intends to comprehend the role of NGOs and develop orientation towards NGOs and their functioning. The course is also beneficial for those who wish to attain skills and orientation in social work profession. The course attempts to impart latest and most relevant skills set to a student for a career in this field NGO and functioning positions in corporate social foundations.

Outcome: Students will improve understanding various components of structure, functions, governance and best practices of government institutions and NGOs. They will sharpen practical skills in developing strategies for dealing with various aspects of GO and NGO functioning and CSR management.

| Unit | Topic |
|------------|---|
| I | Rural Governance and Administration in India |
| 1.1 | Planning Mechanism: Machinery for planning at National and State Level :Top down centralized planning, multi level planning, participatory decentralized planning; Tribal plan. |
| 1.2 | Grass root planning :District Planning, Block level & GP level: Need,scope, objective, components and process |
| 1.3 | Rural Development Organizations: NIRD&PR, SIRD – Gandhigram Rural Institute, MoRD, MoTA. |
| 1.4 | Scope of rural development planning in the era of globalization : E-governance - structure, features & functioning of e- governance in the rural development sector. |
| II | Rural Delivery System of Local Governance : Structure and Functions: |
| 2.1 | Good Governance-Features of Good Governance; Measuring Local Governance. |
| 2.2 | Concept of Democratic Decentralization; its significance and approaches: Political, Administrative and Fiscal; Devolution of power, Functions, functionaries and finance for decentralized planning |
| 2.3 | Role of Panchayati Raj Institutions in decentralized planning: Emergence and Evolution. The 73 rd Constitutional Amendment Act: 11th Schedule- Three Tier Structure of PRI : Powers and Functions; Tribal autonomy |
| 2.4 | Initiatives in Local Governments: Social Audit, Citizen Charter, Right to Education, Right to Information and Right to Public Services- Public Grievances and Redressal Mechanisms. Accountability and Transparency in administration |
| III | NGO Structure and Management |
| 3.1 | Concept of NGO, Voluntarism, Evolution, History and principles, Types of NGOs and VOs, Organisational structure and functions of NGO |
| 3.2 | NGO formation, Rules and Regulation, procedure of formation, Executive Committee and their functions |
| 3.3 | Legal aspects of NGO: Types of Registration, 80G, 12A; Foreign Contribution Regulation Act |
| 3.4 | Central Social Welfare Board, State Social Welfare Board, Other Central and State Government |

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| | Departments |
| IV | Funding agencies and International Organizations |
| 4.1 | Funding agencies for NGOs, Sources of Fund, NGO funding opportunities, types of funding, Fund raising program and management |
| 4.2 | International NGO-Concept, Structure, strategies and contribution of USAID, Amnesty International, UNICEF, DFID, EU Funding, WWF etc, International Donor agencies |
| 4.3 | Corporate Social Responsibility-Concept, procedure, funding opportunities through CSR |
| 4.4 | CSR foundation and their CSR activity in India: CSR laws in India, Schedule-VII activities, CSR fund Mandate. CSR and NGO interaction, Obligations |

Suggested Readings:

1. Dhalimal, S. S. (2004). *Good Governance in Local Self-Government*. New Delhi: Deep & Deep Publications.
2. Jain, L. C. (Ed.). (2005). *Decentralisation and Local Governance*. New Delhi: Orient Longman.
3. Aziz, A., et al. (2002). *Decentralised Governance and Planning: A Comparative Study of Three South Indian States*. New Delhi: Macmillan India Ltd.
4. Mathur, K. (2009). *From Government to Governance*. New Delhi: National Book Trust.
5. Lalitha, N. (2004). *Rural Development in India: Emerging Issues and Trends*. Delhi: Dominant Publishers.
6. Drucker, P. F. (1990). *Managing the Non-Profit Organization: Practices and Principles*. New York: HarperCollins Publishers.
7. Flower, A. (2006). *NGO Management*. Jaipur: ABD Publishers.
8. Ahuja, R. (2007). *Indian Social System*. Jaipur: Rawat Publications.
9. Smillie, I., & Hailey, J. (2001). *Managing for Change: Leadership, Strategy and Management in Asian NGOs*. London: Earthscan Publications.
10. Chowdhury, D. P. (2013). *Strategic Planning and Management of Nonprofit Organizations and NGOs: Theory, Practice, Research and Cases*. New Delhi: Atlantic Publishers & Distributors.

CORE COURSE (Theory): 7 (MRS2PCOR07T) -Rural Society and Rural Culture

(50marks; 4 credits)

This course attempts to lay the foundation for the spatial basis of village studies and that how regional character configures local rural institutions and practices. It offers knowledge to the students on the social structure and social change in rural India affecting the various communities in addition to the key concepts of culture, cultural processes and the socio-cultural practices in India

Outcome: Objective of the course is to make the students aware about the basic concepts of rural society and culture and to acquaint with the associated regional rural problems in this context. It seeks to impart an understanding of how caste and ethnicity based identities define marginality in the socio-cultural process. Also, globalization as an economic process impacting social identities and social change is introduced in this course.

| Unit | Topic |
|-------------|--|
| I | Rural Society in India |
| 1.1 | Socio-cultural regions in India: basis of regionalization, importance. |
| 1.2 | Spatial dimension of Indian villages: Types of Villages and rural communities (peasant, rural community, folk society, hill communities, coastal communities); physical and cultural attributes; recent changes. |

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| 1.3 | Tribal Communities: definitional issues, distinctive features, distribution, developmental impacts. Scheduled Tribes. Particularly Vulnerable Tribal Groups (PVTG). |
| 1.4 | Rural social structure: concept of social stratification, agrarian class, phenomenon of caste, Caste and social justice. Scheduled castes. |
| II | Social Change, Social Capital and Rural Development |
| 2.1 | Social change in rural India: sanskritisation, westernization, modernization and industrialization; Legislation for rural social change. |
| 2.2 | Urbanization, Globalization and its impact on Indian rural society. Emergence of the rural middle class |
| 2.3 | Concept of social capital: Bordieu, Putnam, Coleman; Components of social capital; Role of social capital in rural development. |
| 2.4 | Regional Rural Problems with special reference to India: Concept and interstate variations- Illiteracy, Child Labor, Child Marriage, Violence against Women. |
| III | Rural Culture |
| 3.1 | Key Concepts of Culture :Material and Non Material Culture; Tangible and intangible Heritage; Cultural Diversity and Cultural Landscape; Cultural diffusion |
| 3.2 | Cultural Processes:Cultural Assimilation, Integration and Acculturation; Cultural Segregation and Cultural Regeneration; Detribalization and Sanskritization. |
| 3.3 | Material and Non Material Culture of Tribes: Case studies from WestBengal on house type settlement pattern and on indigenous knowledge |
| 3.4 | Religion and nature: Religion and water bodies/river; Religion and forest ; Role of sacred groves in tribal communities. |
| IV | Impact of Rural Socio-cultural practices in India |
| 4.1 | Role of Institution of Religion: Festivals associated with agriculture ; Mass gathering religious practices |
| 4.2 | Role of Institution of family: birth, marriage and death customs and ritual practices across various rural communities |
| 4.3 | Folk heritage and culture |
| 4.4 | Government interventions and its impact on tribal and non tribal culture |

Suggested Readings:

1. Ahuja, R. (1999). *Society in India*. Jaipur: Rawat Publications.
2. Ahmad, A. *Social Geography*. Jaipur: Rawat Publications.
3. Aslany, M. (2020). *Contested Capital: Rural Middle Classes in India*. Cambridge: Cambridge University Press.
4. Breman, J. (1997). "The Village in Focus." In J. Breman, P. Kloos, & A. Saith (Eds.), *The Village in India Revisited*. Delhi: Oxford University Press.
5. Coleman, J. S. (2000). "Social Capital in the Creation of Human Capital." In P. Dasgupta & I. Serageldin (Eds.), *Social Capital: A Multifaceted Perspective*. Washington, DC: The World Bank.
6. Desai, A. R. (2019). *Rural Sociology in India* (5th ed.). New Delhi: Sage Publications.
7. Desai, A. R. *Tribes in Transition*. Bombay: Popular Prakashan.
8. Doshi, S. L., & Jain, P. C. (2010). *Rural Sociology*. Jaipur: Rawat Publications.
9. Grootaert, C. (1998). *Social Capital: The Missing Link?* Social Capital Initiative Working Paper No. 3. Washington, DC: The World Bank.
10. Gupta, D. (2011). "How Rural is Rural India?" In *Oxford Handbook of Agriculture*. Oxford: Oxford University Press.

11. Jodhka, S. S. (1997). *From “Book View” to “Field View”: Social Anthropological Constructions of the Indian Village*. QEH Working Paper Series, No. 5. Oxford: Queen Elizabeth House, University of Oxford.
12. Krishna, A., & Uphoff, N. (1999). “Measuring and Mapping Social Capital: A Conceptual and Empirical Study of Collective Action for Conserving and Developing Watersheds in Rajasthan, India.” *Social Capital Initiative Working Paper*, No. 13. Washington, DC: The World Bank.
13. Ministry of Tribal Affairs, Government of India. *Annual Report*. New Delhi: Ministry of Tribal Affairs.
14. Mondal, S. (2018). *Rural Sociology and Educational Psychology*. New Delhi: Kalyani Publishers.
15. Newby, H. (1980). “Trend Report: Rural Sociology.” *Current Sociology*. London: Sage Publications.
16. Rawat, H. K. (2010). *Sociology: Basic Concepts*. Jaipur: Rawat Publications.
17. Sharma, K. L. (1997). “Country Town Nexus in India: A Macro View.” *Rural Society*.
18. Srinivas, M. N. (1955). *Village India*. Bombay: Asia Publishing House.
19. Srinivas, M. N. (1995). *Social Change in Modern India*. New Delhi: Orient Longman.
20. Thorner, D., & Dhanagare, D. N. (1991). *Social Stratification: Readings in Sociology and Social Anthropology*. New Delhi: Oxford University Press.

**CORE COURSE (Theory): – 8 (MRS2PCOR08T) :Globalization and Rural Livelihood
(50marks; 4 credits)**

This course discusses the conceptual elements in the understanding of rural livelihood, the challenges and the relevant policies to address the challenges to livelihood sustainability. The course also introduces the concept of globalization as an all encompassing process in steering the path of the rural processes. It straddles along the issues of transnational capital, global value chains, interlocking of the rural and urban processes and land grabbing issues to contextualize the rural space in the global milieu focusing on global-local intertwining.

Outcome: The students would be able to appreciate the rural dynamics and rural livelihood not as any isolated phenomenon but that much of what is observable is a manifestation of a larger transnational process called globalization.

| Unit | Topic |
|------------|--|
| I | Rural Livelihoods |
| 1.1 | Rural livelihood : Concepts and definitions. Framework of livelihood analysis. |
| 1.2 | Sustainable Rural Livelihood: Concept and Framework; Strategies for sustainable rural livelihoods: agricultural intensification, diversification, migration. |
| 1.3 | Government (GO) - NGO Collaboration for promotion of rural livelihoods. |
| 1.4 | Livelihood Mapping: concept, techniques and uses. |
| II | Globalization and rural livelihoods in India |
| 2.1 | Globalization: Concept of GATT and WTO, WTO Agreements , TRIPS Agreement on Agriculture (AoA), TRIM; implications for the rural communities. |
| 2.2 | Implications of the New International Division of Labour, Globalization and labour laws for the rural communities. |
| 2.3 | Emerging global food and non-food value chains, peasants and the rural economy. |
| 2.4 | Agrarian crisis: concept, factors, alleviation measures |
| III | Land, Livelihoods & Gender |
| 3.1 | Significance of access to land to rural livelihoods. |
| 3.2 | Land acquisition for non-agricultural uses: debates/issues in neoliberal India. |

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| 3.3 | Transnational capital and global land grabs. |
| 3.4 | Gender and Land Rights. |
| IV | Rural-Urban Interaction and Rural Livelihoods |
| 4.1 | Urbanization, urban expansion, urban sprawl. |
| 4.2 | Rural-urban interaction & Peri-urbanisation concept and its relevance in neoliberal India. Determinants of rural-urban interaction. |
| 4.3 | Changes in the peri-urban space owing to rural-urban interaction. Flows at the peri-urban interface and social, cultural economic transformation of rural livelihoods: links with urban food markets. |
| 4.4 | Problems and opportunities of rural-urban interactions- Impact of rural urban interaction upon the sustainable rural livelihoods |

Suggested Readings

1. Carney, Diana (1998): "Sustainable Rural Livelihoods: What Contribution Can We Make?" Department for International Development.
2. Deborah Bryceson, Cristobal Kay and Jos Mooij (2000): *Disappearing Peasantries? Rural Labour in Africa, Asia and Latin America*, Intermediate Technology Publications, London
3. *Rural Livelihoods & Diversity in Developing Countries*, Ellis Frank, Oxford University Press
4. *Rural Livelihood in India Social, Economical & Environmental Issues* Dutta S. K. P.K Kuri, Serials Publications Pvt. Ltd.
5. *Rural Livelihood and Poverty Reduction Policies* by Routledge Publications.
6. *Diversification & sustainable rural livelihood*, ShylendraS.H& Uma Rani, Concept Publishing
7. *Sustainable Livelihood and Rural Development* by Fernwood Books ltd.
8. *Rural Livelihood crisis & responses*, Bernsten H, B. Crow, H. Jonson(ED), Oxford University Press, Oxford.
9. Agarwal, Bina (1998): 'Disinherited Peasants, Disadvantaged Workers: A Gendered Perspective on Land and Livelihood', *Economic and Political Weekly*, March 25; pp A-2 –A-14.
10. Davila, Julio D, Jessica Budds and Alicia Minaya (1999): 'Review of Policies and Strategies Affecting the Peri-urban Interface', *Paper produced for the Research Project on Strategic Environmental Planning and Management for the Peri-Urban Interface*, Development Planning Unit, University College, London. [www.ucl.ac.uk/dpu/pui]
11. DFID, Natural Resource Systems Programme (2005): 'A Synthesis of Peri-Urban Research of Kumasi, Hubli-Dharawad and Kolkata Peri-urban Interfaces', Final Report of Project R8491, Development Planning Unit, University College London. [http://www.ucl.ac.uk/dpu/pui/research/previous/synthesis/final%20report_interfaces.pdf]
12. Dupont, Veronique (ed.) (2005): *Peri-Urban Dynamics: Population, Habitat and Environment on the Peripheries of Large Indian Metropolises- A review of concepts and general issues*, CSH Occasional Paper, No. 14.
13. Hazell and Haggblade (1991): 'Rural-Urban Growth Linkages in India', *Indian Journal of Agricultural Economics*, Vol. 46, No. 4, October-December; pp 515-529.
14. Mondal,Sagar (2018),Agricultural Extension with Global Innovations, Kalyani Publishers, New Delhi

CORE COURSE (Theory) :- 9 (MRS2PCOR09T) Entrepreneurship Development and Rural Marketing (50 marks; 4 credits)

This course will train and educate the students to identify the potential of rural entrepreneurship in Indian villages. The course has also been designed with the objective to disseminate the knowledge on different rural entrepreneur sectors and their role in development of rural entrepreneurship. It also offers the students to think critically by knowing the relevant procedure, funding source and management principles.

Outcome: Students will be able to identify the potential rural entrepreneurs and can take appropriate measures to develop a rural entrepreneurship

| Unit | Topic |
|------------|--|
| I | Rural Entrepreneurship |
| 1.1 | Rural Entrepreneurship- Concept, Types, Characteristics & Importance. |
| 1.2 | Characteristics of Entrepreneur and enterprises , Creativity and Innovation |
| 1.3 | Agripreneurship, Nature & Importance of agripreneurship, Classification and types of entrepreneurs, Rural Entrepreneurs, Rural Artisans, Women entrepreneurs |
| 1.4 | Rural Industries-Nature ,type, Importance of rural industrialization,Individual vs. Group Enterprise, Cluster and Consortium |
| II | Rural Entrepreneurship Development |
| 2.1 | Entrepreneurship Development; Motivation and Competencies. Sources of finance; Steps to Develop Rural Entrepreneurship |
| 2.2 | Government Policies and Programmes for Entrepreneurship Development in India ,MSME - Meaning, Importance, Features, and Challenges |
| 2.3 | Rural entrepreneurship support systems, NABARD bankable projects in entrepreneurship development. |
| 2.4 | Problems of Rural Entrepreneurship in India |
| III | Rural Marketing: Concepts |
| 3.1 | Conceptual Framework of Rural Marketing: Concept of rural consumer behavior,pricing strategies |
| 3.2 | Concept of Marketing Management: Classifications of Agricultural Products, Marketing Agencies and Channels |
| 3.3 | Marketing Functions:- Meaning, classifications- packaging, grading, storage and warehousing, transport , buying and selling |
| 3.4 | Marketing of Agricultural Input & Agricultural Output |
| IV | Rural Marketing in India |
| 4.1 | Types of Rural markets: Co-operative markets: NAFED, NCDC & TRIFED; Mandis , Periodic markets, role of fair and mela |
| 4.2 | Role of ICT in Rural marketing: E-Krishi, e-choupal, IT in Cooperative Dairy |
| 4.3 | Challenges and Opportunities of Rural markets |
| 4.4 | Policy measures for Development of Rural markets: Agricultural Subsidies. agribusiness , contract farming . |

Suggested Readings:

1. Ghosh, P. K. (2011). *Business Ethics: Text and Cases*. New Delhi: Vikas Publishing House.

2. Badi, N. V., & Badi, R. V. (2012). *Rural Marketing*. New Delhi: Himalaya Publishing House.
3. Habeeb-Ur-Rahman, K. S. (2004). *Rural Marketing in India*. Mumbai: Himalaya Publishing House.
4. Gopalaswami, T. P. (2009). *Rural Marketing: Environment, Problems and Strategies*. New Delhi: Vikas Publishing House.
5. Dogra, B., & Ghuman, K. (2008). *Rural Marketing: Concepts and Practices*. New Delhi: Tata McGraw Hill Education Pvt. Ltd.
6. Badi, R. V., & Badi, N. V. (2005). *Entrepreneurship*. New Delhi: Vrinda Publications.
7. Ahirrao, J. (2012). *Entrepreneurship and Rural Women in India*. New Delhi: New Century Publications.
8. Sharma, S. (2013). *Entrepreneurship Development*. New Delhi: PHI Learning Pvt. Ltd.
9. Khanna, S. S. (2014). *Entrepreneurial Development*. New Delhi: S. Chand Publishing.
10. Singh, B. M., & Nambodoori, K. V. M. (2015). *Unleashing Rural Entrepreneurship*. New Delhi: Sage Publications.
11. Mondal, S., & Ray, G. L. (2018). *Rural Entrepreneurship and Communication Skills*. New Delhi: Kalyani Publishers.
12. Mondal, S. (2019). *Entrepreneurship Development and Business Communication*. New Delhi: Kalyani Publishers.

CORE COURSE (Mixed) :- 10 (MRS2PCOR10M)Rural Health, Sanitation and Community Wellbeing (50 marks; (3+1) Credits)

The course is designed to provide detailed knowledge regarding rural healthcare systems, public health conditions, sanitation, nutrition and environmental health issues in India. The course seeks to develop analytical understanding about rural disease burden, healthcare delivery mechanisms, maternal and child health, water and sanitation management, public health governance and community participation. The course emphasizes practical understanding of rural healthcare interventions, government programmes and grassroots health management systems.

Outcome: The concepts of health, public health, and health institutions will be developed. Students will be able to plan and manage a public health programme using the acquired skills in health care management, health communication and delivery mechanisms.

| Unit | Topic |
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| I | Concept and Importance of Rural Health |
| 1.1 | Meaning and concept of health and rural health, Dimensions of health: physical, mental, social and environmental health, Concept of community wellbeing and quality of life, Importance of rural health in rural development |
| 1.2 | Socio-economic determinants of health: Poverty, illiteracy and unemployment as health determinants; Cultural beliefs and ethno-medicine and healing practices |
| 1.3 | Major indicators of rural health; Rural-urban disparities in healthcare; Maternal and child health conditions in rural India; Communicable and non-communicable diseases in rural areas |
| 1.4 | Concepts of Public Health and Community Health; Public health and preventive healthcare; Primary healthcare approach; Community participation in healthcare |
| II | Rural Healthcare Delivery System and Governance |
| 2.1 | Structure of Rural Healthcare System in India, Healthcare delivery system: concept and |

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| | components Sub-centres, Primary Health Centres (PHCs) and Community Health Centres (CHCs), District hospitals and referral services; Role of ASHA, Anganwadi and ANM workers |
| 2.2 | Ministry of Health and Family Welfare: Administrative mechanism; Role of Panchayati Raj Institutions in healthcare management, Rural health care challenges |
| 2.3 | Major Healthcare Programmes: National Health Mission (NRHM)Ayushman Bharat and Health Insurance Schemes, Universal Immunization Programme;Reproductive and Child Health Programmes |
| 2.4 | Role of NGOs in rural healthcare; Community-based health organizations Health awareness campaigns and health education; Participatory approaches in rural health management |
| III | Rural Sanitation, Hygiene and Community Health |
| 3.1 | Concept and importance of sanitation; Rural sanitation problems and challenges; Open defecation and health hazards; Swachh Bharat Mission and sanitation initiatives |
| 3.2 | Drinking Water and Health; Sources of drinking water in rural areas; Water contamination and water-borne diseases; Safe drinking water management; Rural water supply programmes |
| 3.3 | Lifestyle diseases in rural areas, Mental health issues and stress, Pandemic and disaster-related health challenges, Indigenous healthcare knowledge, AYUSH and traditional medicine systems |
| 3.4 | Health communication strategies, ICT and digital healthcare services, Telemedicine and e-health initiatives, Role of media in health awareness |
| IV | Field based Rural Healthcare Assessment (Practical) (1 credit) |
| 4.1 | Study Rural healthcare institutions: Field visit to Sub-centre, PHC or Anganwadi Centre |
| 4.2 | Interaction of Health care personnel and beneficiaries (at least 1 sub centre/PHC) |
| 4.3 | Observation of healthcare services and community participation (Identify the interpersonal relations of healthcare personnel and rural beneficiaries, Identify health-seeking behaviour and challenges of the institution(s)) |
| 4.4 | Preparation of the field report and case study |

Suggested readings:

1. Textbook of Community Medicine Park, K. (2023). *Park's Textbook of Preventive and Social Medicine*. Jabalpur: Banarsidas Bhanot Publishers.
2. Community Health Nursing Kamalam, S. (2018). *Essentials in Community Health Nursing Practice*. New Delhi: Jaypee Brothers Medical Publishers.
3. Rural Health Care in India Goel, A. (2019). *Rural Health Care System in India*. New Delhi: Deep & Deep Publications.
4. Health and Development Basu, E. (2017). *Health and Development in Rural India*. New Delhi: Rawat Publications.
5. Public Health and Community Medicine Sreevani, R. (2020). *A Guide to Community and Public Health*. New Delhi: CBS Publishers.
6. Indian Public Health Standards Ministry of Health and Family Welfare. (2022). *Indian Public Health*

Standards Guidelines. New Delhi: Government of India.

7. Rural Sociology and Community Development Doshi, S.L. & Jain, P.C. (2016). *Rural Sociology*. Jaipur: Rawat Publications.
8. Environmental Health and Hygiene Ahluwalia, V.K. (2015). *Environmental Pollution and Health Hazards*. New Delhi: TERI Press.
9. Health Communication Dutta, M.J. (2018). *Health Communication: Theory and Practice*. Cambridge: Polity Press.
10. Telemedicine Technologies Norris, A.C. (2017). *Essentials of Telemedicine and Telecare*. New Jersey: Wiley Publications.
11. Ministry of Health and Family Welfare Annual Reports, National Health Mission Guidelines and Rural Health Statistics published by the Government of India.
12. National Health Mission Programme guidelines and reports on maternal health, child health and rural healthcare delivery systems.
13. World Health Organization WHO publications on primary healthcare, community health and rural sanitation.
14. UNICEF Reports on child health, nutrition, sanitation and rural water supply programmes.
15. NITI Aayog Reports on health infrastructure, digital healthcare and rural health governance in India.

SEMESTER-III

CORE COURSE (Theory) :- 11 (MRS2PCOR11T) Qualitative Methodology for Rural Research (50 marks; 4 credits)

| Unit | Topic |
|------------|--|
| I | Rural Research and Qualitative Research Methodology |
| 1.1 | Qualitative Research : Definition and significance |
| 1.2 | Types of Qualitative Research Methods: |
| 1.3 | Principles, advantages and disadvantages |
| 1.4 | Relationship between qualitative and quantitative research |
| II | Issues on Rural Research |
| 2.1 | Pre-field Issues on rural research: Contemporary research trends , literature search on research problem stated, framing research question, selecting study area and target population , identifying and collecting relevant secondary data. |
| 2.2 | Sampling Fundamentals & Sampling design |
| 2.3 | Preparing survey schedule and semi- structured questionnaire , Pilot study |
| 2.4 | Ethical Issues in data collection from the field |
| III | Qualitative Data Collection Techniques : Sources and Methods |
| 3.1 | PRA/ PLA-Concept, Tools, Application: Social mapping, resource Mapping, Transect walk, Tile line, trend analysis, Seasonal diagram, Matrix scoring/ranking, Venn diagram; Problem Tree & Solution Matrix |
| 3.2 | FGD – Concept and Application |
| 3.3 | Ethnographic Field diary |
| 3.4 | Field-based visual observations Participant observation |
| IV | Data Processing and Analysis |
| 4.1 | Transcription from ethnographic field notes and audio-video recordings from PRA & FGD |
| 4.2 | Stakeholder Analysis and identification of problems and priorities; |
| 4.3 | SWOT Analysis of a rural development scheme or any sector |
| 4.4 | Methods of report writing |

Suggested Readings

1. Research Methodology: Methods and Techniques — Kothari, C.R. and Garg, G. (2019). *Research Methodology: Methods and Techniques* (4th Edition). New Age International Publishers, New Delhi.
2. Participatory Rural Appraisal: Principles, Methods and Application — Narayanaswamy, N. (2009). *Participatory Rural Appraisal: Principles, Methods and Application*. Sage Publications India Pvt. Ltd., New Delhi.
3. Participatory Rural Appraisal and Questionnaire Survey — Mukherjee, N. (1993). *Participatory Rural Appraisal and Questionnaire Survey*. Concept Publishing Company, New Delhi.
4. Participatory Learning and Action: A Trainer's Guide — International Institute for Environment and Development (1995). *Participatory Learning and Action: A Trainer's Guide*. IIED, London.
5. Ethnographic Methods — O'Reilly, K. (2005). *Ethnographic Methods*. Routledge, Taylor & Francis Group, London.
6. Methods in Human Geography — Parfitt, J. (2005). "Questionnaire Design and Sampling." In Flowerdew,

- R. and Martin, D. (Eds.), *Methods in Human Geography: A Guide for Students Doing a Research Project*(2nd Edition), Pearson Prentice Hall, Harlow, England, pp. 78–106.
7. Combining Quantitative and Qualitative Approaches to Social Research in Human Geography — Philip, L.J. (1998). “Combining Quantitative and Qualitative Approaches to Social Research in Human Geography—An Impossible Mixture?” *Environment and Planning A*, 30, pp. 261–276.
 8. Key Methods in Geography — Laurier, E. (2010). “Participant Observation.” In Clifford, N., French, S. and Valentine, G. (Eds.), *Key Methods in Geography* (2nd Edition). Sage Publications, Los Angeles, pp. 116–129.
 9. A Technique for the Measurement of Attitudes — Likert, R. (1932). “A Technique for the Measurement of Attitudes.” *Archives of Psychology*, 22(140), p. 55.
 10. Semi-structured Interviews and Focus Groups — Longhurst, R. (2010). “Semi-structured Interviews and Focus Groups.” In Clifford, N., French, S. and Valentine, G. (Eds.), *Key Methods in Geography* (2nd Edition). Sage Publications, Los Angeles, pp. 103–117.
 11. The Epistemology of Qualitative Research — Becker, H.S. (1996). “The Epistemology of Qualitative Research.” In Jessor, R., Colby, A. and Shweder, R.A. (Eds.), *Ethnography and Human Development*. University of Chicago Press, Chicago, pp. 53–71.
 12. Designing and Conducting Mixed Methods Research — Creswell, J.W. and Plano Clark, V.L. (2017). *Designing and Conducting Mixed Methods Research* (3rd Edition). Sage Publications, Thousand Oaks, California, USA.

CORE COURSE (Mixed) :- 12(MRS2PCOR12M):Quantitative Research Methods and Data Analysis Techniques (50 Marks, (2+2) credits)

The course is designed to provide students with a comprehensive understanding of social science research methods and quantitative data analysis techniques used in rural and social research. It aims to develop conceptual clarity regarding research design, variables, hypothesis formulation, sampling methods, and data collection techniques. This mixed course will also develop students' practical data collection, tabulation, analysis, and interpretation skills.

Outcome:

After successful completion of the course, students will be able to understand the fundamental concepts and procedures of social science research and quantitative research methodology. They will acquire skills in designing research tools, collecting and managing quantitative data, and applying appropriate statistical techniques for analysis and hypothesis testing. The course will also enable learners to prepare analytical research reports and undertake independent quantitative research in rural and social development contexts.

| Unit | Topic |
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| I | Social Science Research |
| 1.1 | Social Science Research : Meaning, objective, significance ; Steps in social research, Types of Research. |
| 1.2 | Variables-concept, types, Measurement scale-concept, types, scale development techniques |
| 1.3 | Hypothesis: concept, types, formulation of hypothesis;Sampling Fundamentals & Sampling design. |
| 1.4 | Construction of data collection tool: collection of data, preparation of interview schedule; questionnaire preparation, validity and reliability, Data tabulation, Data |

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| II | Basic Statistical Tools and Techniques |
| 2.1 | Data Analysis: Concept, Primary & Secondary Data, Collection and Presentation of Statistical Data, Diagrammatic and graphical presentation of data |
| 2.2 | Measures of Central Tendency- Mean, Median, Mode, Dispersion- Range, Average deviation, Standard deviation, Quartile deviation, concept of Normal Probability Curve. |
| 2.3 | Concept and importance of relationship analysis; Correlation analysis: meaning, types and methods; Regression analysis: meaning and significance |
| 2.4 | Testing of Hypothesis- steps of hypothesis testing -Parametric and non parametric data. T-test, Z-Test, Chi-square test, ANOVA, Mann-Whitney, Kruskal Wallis test, Interpretation and reporting of statistical results |
| Practical (2 credits) | |
| III | Quantitative data collection (Practical) |
| 3.1 | Construction of structured interview schedule/questionnaire |
| 3.2 | Collection of quantitative data from rural areas |
| 3.3 | Validation and tabulation of data, data coding |
| 3.4 | Construction of data entry grid- Epi data, MS Excel |
| IV | Data analysis and Hypothesis testing (Practical) |
| 4.1 | Use of different statistical methods in social data set- Frequency distribution, measures of central tendency |
| 4.2 | Graphical representation of the data, Measurement of dispersion |
| 4.3 | Perform Chi-square test, t-Test, correlation analysis, regression analysis, ANOVA, Mann-Whitney and KruskalWallis test |
| 4.4 | Prepare a report on quantitative analysis using different data analysis techniques. |

Suggested readings:

1. Research Methodology: Methods and Techniques — Kothari, C.R. and Garg, G. (2019). *Research Methodology: Methods and Techniques* (4th Edition). New Age International Publishers, New Delhi.
2. Social Research Methods — Bryman, A. (2016). *Social Research Methods* (5th Edition). Oxford University Press, New Delhi.
3. Research Methodology — Kumar, R. (2014). *Research Methodology: A Step-by-Step Guide for Beginners* (4th Edition). Sage Publications, New Delhi.
4. Statistical Methods — Gupta, S.P. (2017). *Statistical Methods*. Sultan Chand & Sons, New Delhi.
5. Fundamentals of Applied Statistics — Gupta, S.C. and Kapoor, V.K. (2014). *Fundamentals of Applied Statistics*. Sultan Chand & Sons, New Delhi.
6. Social Statistics and Research Methods — Mukherjee, R. (2015). *Social Statistics and Research Methods*. Vivek Prakashan, Delhi.
7. An Introduction to Statistical Methods — Yule, G.U. and Kendall, M.G. (2010). *An Introduction to the Theory of Statistics*. CBS Publishers & Distributors, New Delhi.
8. Discovering Statistics Using SPSS — Field, A. (2018). *Discovering Statistics Using SPSS* (5th Edition). Sage Publications, London.
9. Biostatistics: A Foundation for Analysis in the Health Sciences — Daniel, W.W. and Cross, C.L. (2013). *Biostatistics: A Foundation for Analysis in the Health Sciences* (10th Edition). Wiley India Pvt. Ltd., New Delhi.
10. Quantitative Social Research Methods — Bulmer, M. (2004). *Questionnaires, Surveys and Sampling*.

**CORE COURSE (Theory) – 13: (MRS2PCOR13T) Project Management and Appraisal
(50 marks; 4 credits)**

This course enables the acquisition of foundational knowledge about basic project management principles, procedures and project appraisals. The course seeks to offer holistic knowledge on project development, project management procedure, feasibility study and critical project analysis. This course will consolidate and expand knowledge of project costing and deepen understanding of its relevance to the broader project development process.

Outcome: Determine and apply knowledge of complex project management theory, principles and best practice to apply projects to contribute to the profession and discipline of project management. Critically analyze, synthesize and reflect on project management theory and recent developments, both local and international, to extend and challenge knowledge and practice. The course will enable students to develop proposals based on logical framework approach and effective monitoring and evaluation mechanisms.

| Unit | Topic |
|-------------|---|
| I | Concept of Project |
| 1.1 | Project-concept, Types, Project Manager-skills, characteristics |
| 1.2 | Project ideas, Project life cycle, Project lifecycle curve |
| 1.3 | Phases of project, Characteristics of project phases |
| 1.4 | Project planning- Process, Machinery of project planning |
| II | Project Management |
| 2.1 | Project management-concept, need |
| 2.2 | Project feasibility study-technical feasibility, economic feasibility and financial feasibility |
| 2.3 | Project of a project :concept of present value and future decision criteria |
| 2.4 | Pay Back Period, Net present value (NPV), Internal Rate of Return (IRR), Benefit Cost Ratio (B/C Ratio), Average Return on Investment (ARI), Annual cost Method |
| III | Project Sensitivity Analysis |
| 3.1 | Sensitivity Analysis: Private and social costs and benefit of a project |
| 3.2 | Externalities of project, Tools of project management – Activity planning, net work analysis |
| 3.3 | Project Log frame analysis, Gantt chart |
| 3.4 | CPM and PERT methods, Road Mapping, Schedule updating SWOT analysis |
| IV | Project Monitoring and Evaluation |
| 4.1 | Project monitoring-need, importance of project monitoring |
| 4.2 | Project monitoring criteria, Steps of project monitoring and project monitoring process, Tools of project monitoring and its limitations |
| 4.3 | Project evaluation- need, types, planning for evaluation, Project evaluation criteria |
| 4.4 | Project impact evaluation |

Suggested Reading

1. Project Management: A Systems Approach to Planning, Scheduling and Controlling — Kerzner, H. (2017). *Project Management: A Systems Approach to Planning, Scheduling and Controlling* (12th Edition). Wiley India Pvt. Ltd., New Delhi.
2. Project Planning, Analysis, Selection, Financing, Implementation and Review — Chandra, P. (2019). *Projects: Planning, Analysis, Selection, Financing, Implementation and Review* (10th Edition). McGraw Hill Education, New Delhi.
3. Project Management and Control — Swami, N. and Singh, R. (2015). *Project Management and Control*. Himalaya Publishing House, Mumbai.
4. Project Management — Desai, V. (2016). *Project Management*. Himalaya Publishing House, Mumbai.
5. Development Project Management — Maylor, H. (2010). *Project Management* (4th Edition). Pearson Education, New Delhi.
6. Project Appraisal and Management — Agrawal, R.C. and Mehra, Y.S. (2014). *Project Appraisal and Management*. New Age International Publishers, New Delhi.
7. Operations Research — Taha, H.A. (2017). *Operations Research: An Introduction* (10th Edition). Pearson Education, New Delhi.
8. Monitoring and Evaluation: Some Tools, Methods and Approaches — World Bank (2004). *Monitoring and Evaluation: Some Tools, Methods and Approaches*. World Bank Publications, Washington D.C.
9. Project Cycle Management Guidelines — European Commission (2004). *Project Cycle Management Guidelines*. Office for Official Publications of the European Communities, Brussels.
10. Financial Management — Pandey, I.M. (2015). *Financial Management* (11th Edition). Vikas Publishing House Pvt. Ltd., New Delhi.
11. Essentials of Project Management — Lock, D. (2013). *Project Management* (10th Edition). Gower Publishing, London.
12. Programme Planning and Evaluation — Misra, R.P. (2002). *Project Planning and Evaluation*. Concept Publishing Company, New Delhi.

CORE COURSE (Practical) – 14: (MRS2PCOR14P) Village Study: Secondary Data & Qualitative Research Techniques (50 marks; 4 credits)

Course objective: The course exposes the students to various sources of secondary data collection and its interpretation on socially sensitive and contemporary economic issues in research. It also enhances their skill in collecting, processing and analyzing primary data from the field using qualitative research techniques

Course outcome: The students can be involved in report writing based on advanced social science research activities/projects and take part in impactful policy research. The field based on a village level visit would enable them to evolve as a good field investigator and programme implementation agent based on the comprehensive knowledge obtained through qualitative research techniques .

| Unit | Topic |
|------------|---|
| I | Village level secondary data collection source & application |
| 1.1 | Census & its types ; Village Level Directory, Primary Census Abstract |
| 1.2 | Data source for Economic sector : |
| 1.3 | Data source for Social sector |
| 1.4 | Demographic Data Analysis through cartograms |

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| II | Primary Data Processing and Analysis |
| 2.1 | Pilot study and questionnaire framing |
| 2.2 | Conducting a FGD & its Analysis using Qualitative Research Techniques |
| 2.3 | Application of different tools of PRA /PLA &its analysis |
| 2.4 | Transcriptionfromethnographicfieldnotes and audio-video recordings |
| III | Formulation of Rural Planning: Case study of any one village |
| 3.1 | Problem identification &Analysis :Problem Tree& Solution Matrix of PRA/PLA, StakeholderAnalysis & SWOT Analysis |
| 3.2 | Opportunity analysis: Problem Tree& Solution Matrix of PRA/PLA, StakeholderAnalysis & SWOT Analysis |
| 3.3 | Program implementationstudy : Governmental & and Non- governmental intervention Preparation of rural extension materials- Leaflet, posters, audio clips |
| 3.4 | Planning strategies at village level: Analysis of any sector with available information from GP |
| IV | Laboratory Note Book & Viva Voce |

Elective Course 1(Theory): (MRS2PDSE01T-A) Disaster Studies I

(50marks;4 credits)

This course offers introduction to the concept of hazard and disaster, their typologies and their causalities. It elaborates on the approaches to disaster management, resilience building and the rural-urban dichotomy in risk reduction framework. It further imparts awareness about few major disasters which pose seminal threat to rural livelihoods in India.

Outcome: The students would understand the various aspects of disaster and few case studies to understand how occurrence of disaster perturb the livelihood system in rural India and in what ways they are mitigated to improve livelihood resilience. Climate change and role of community in disaster management discourse is especially focused.

| Unit | Topic |
|-----------|---|
| I | Conceptual issues in Disaster Studies |
| 1.1 | Concept of Hazard and Disaster- the changing perspectives, typology. Models of Disaster: Pressure & Release model (PAR), Access Model. |
| 1.2 | Vulnerability: Concept, types (physical & social), assessment. |
| 1.3 | Risk: concept, assessment and management, Concept of Disaster Risk Reduction (DRR) |
| 1.4 | Disaster profile of India. |
| II | Disaster Risk Governance (DRG) |
| 2.1 | Disaster risk governance: concept, factors affecting DRG, characteristics, institutions |
| 2.2 | International Initiatives in Disaster Management: UN, International Decade for Disaster Risk Reduction (IDNDR), Yokohama, Hyogo and Sendai Framework. |
| 2.3 | Disaster management: Concept, Phases of disaster management- Pre-disaster (prevention, preparedness & mitigation); disaster (response, rescue, relief); post disaster (recovery, restoration, reconstruction, rehabilitation & redevelopment). Disaster Management cycle. |
| 2.4 | Legal framework for DRG in India: evolution and major provisions of the Disaster |

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|------------|---|
| | Management Act 2005 in India. National Disaster Management Plan, National Disaster Management Policy. Role of national level institutions in DRG |
| III | Climate Change and Disasters |
| 3.1 | Climate change: concept, indicators, impacts and regional dimensions; Climate politics and vulnerability of rural areas. Climate change and disasters |
| 3.2 | Climate change adaptation & agriculture- The National Mission for Sustainable Agriculture. IPCC |
| 3.3 | Climate change, disasters and population mobilities: displacements and relocations, Environmental refugee; Resettlement & rehabilitation issues. Migration for resilience. |
| 3.4 | Climate change, disasters and gender |
| IV | Rural Community Resilience to disasters |
| 4.1 | Community resilience: concept of resilience; Concept of social-ecological systems. Determinants of community resilience. Social capital and community resilience building |
| 4.2 | Approaches to resilience building - Disaster Risk Reduction (DRR), Climate Change Adaptation (CCA), Adaptive Social Protection (ASP). Community based disaster risk management: Community Preparedness, Recovery and Resilience |
| 4.3 | Government (GO) - NGO Collaboration for Disaster Risk Reduction and Response. |
| 4.4 | Post Disaster Need Assessment (PDNA); Major databases for disasters |

Suggested Readings :

1. Handmer John and Stephen Dovers (2013): Handbook of Disaster Policies and Institutions, Earthscan from Routledge.
2. Bankoff Greg, Georg Frerks & Dorothy Hilhorst (2006): Mapping Vulnerability-Disasters, Development & People, Earthscan Publications Limited.
3. Smith, K and David N Petley (2009): Environmental Hazards: Assessing Risk and Reducing Disaster, 5th Edition, Routledge, London and New York.
4. Bryant, Edward (2004): Natural Hazards, Cambridge University Press.
5. Disaster Management by Mrinalini Pandey
6. Natural Hazards and Disaster Management: Vulnerability and Mitigation by R. B Singh
7. Adger W.N., Brooks N., Bentham G., Agnew M. & Eriksen S (2004): New indicators of vulnerability and adaptive capacity, Tyndall Centre for Climate Change Research, Technical Report 7.
8. Aldrich D. P. & Meyer M. A. (2014): Social Capital and Community Resilience, American Behavioral Scientist, SAGE Publications, DOI: 10.1177/0002764214550299; p. 1-16
9. Berkes F. & Ross H. (2012): Community Resilience: Toward an Integrated Approach, Routledge Taylor & Francis Group, LLC, Society & Natural Resources, 26:1, 5-20, DOI: 10.1080/08941920.2012.736605
10. Berkes F. (2005): Understanding uncertainty and reducing vulnerability: lessons from resilience thinking, Nat Hazards (2007) 41:283–295, Springer, DOI 10.1007/s11069-006-9036-7; p. 283-295
11. Berkes F., Colding J. & Folke C. (2003): Navigating Social–Ecological Systems Building Resilience for Complexity and Change, Cambridge University Press, New York.
12. Burby R. J.(1998): Cooperating with Nature, Confronting Natural Hazards with Landuse Planning for Sustainable Communities, Joseph Henry Press, Washington.
13. Chapter – 7, Disaster Management: The Development Perspective, Tenth Five Year Plan: 2002-07; p. 189-202.
14. Cutter S.L., Burton C.G. & Emrich C.T. (2010): Disaster Resilience Indicators for Benchmarking Baseline Conditions, Journal of Homeland Security and Emergency Management, Vol. 7: Iss. 1, Article 51. DOI: 10.2202/1547-7355.1732

15. Guzman M. D. (2002): The Total Disaster Risk Management Approach: An Introduction, Regional Workshop on Networking and Collaboration among NGOs of Asian Countries in Disaster Reduction and Response.
16. Hinkel J.(2011): “Indicators of vulnerability and adaptive capacity”:Towards a clarification of the science–policy interface, Global Environmental Change, Elsevier, doi:10.1016/j.gloenvcha.2010.08.002
17. India Community-based disaster risk reduction programme, International Federation of Red Cross and Red Crescent Societies, 2013
18. Mainstreaming Disaster Risk Reduction and Climate Change Adaptation in the National Flagship ProgrammesMainstreaming Disaster Risk Reduction and Climate Change Adaptation in the National Flagship Programmes, the GOI-UNDP Project on 'Enhancing Institutional and Community Resilience to Disasters and Climate Change (2013-2020)', Mainstreaming Disaster Risk Reduction and Climate Change Adaptation in the National Flagship Programmes, 2019.
19. Marschke M. J. & Berkes F. (2006): Exploring strategies that build livelihood resilience: a case from Cambodia, Resilience Alliance, Ecology and Society 11(1): 42.
20. Module 8. Community Based Disaster Risk Management, Disaster management, Jamia Millia Islamia, New Delhi
21. NGOs & Disaster Risk Reduction: A Preliminary Review of Initiatives And Progress Made, Background Paper for a Consultative Meeting on A “Global Network of NGOs for Community Resilience to Disasters”, International Strategy for Disaster Reduction, United Nations, 2006.
22. Norris F. H., Stevens S. P., Pfefferbaum B., Wyche K. F. &Pfefferbaum R. L. (2007): Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness, Am J Community Psychol (2008) 41:127–150, Springer, DOI 10.1007/s10464-007-9156-6.
23. Osa Y: The Growing Role of NGOs in Disaster Relief and Humanitarian Assistance in East Asia, Disaster Relief and Humanitarian Assistance.
24. Patel S. S., Rogers M. B., Amlot R. and Rubin G. J. (2017): What do you meant by ‘Community Resilience’? A systematic literature review of how it is Defined in the literature, PLOS Currents.

Elective Course 1(Theory)- (MRS2PDSE01T-B) Sustainable Agriculture and Crop Production Techniques (50 marks;4 credits)

This elective course is designed for students who are interested to take an opportunity in rural agricultural field. It not only describes the agricultural crop production techniques but also the sustainability of agriculture through proper use of resources and proper planning.

Outcome: After completion of this course students will be able to plan for area specific crop production process and also be capable to develop different models of sustainable agricultural practices.

| Unit | Topic |
|------------|---|
| I | Soil and Water management in Agriculture |
| 1.1 | Soil management:Concept, composition and classification of soil; physical and chemical properties of soil; soil texture, structure, bulk density, porosity, soil temperature, soil colour and soil fertility; soil organic matter and soil health management. |
| 1.2 | Soil pH and nutrient availability; acid soils and their management; saline and alkaline soils—nature, characteristics, causes, effects and reclamation measures; soil erosion and conservation techniques. |

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| 1.3 | Water resources and irrigation water sources; methods of irrigation—surface, sprinkler and drip irrigation; rainwater harvesting; watershed management; water conservation techniques in arid and semi-arid regions. |
| 1.4 | Heavy metal contamination, pesticide residues and microplastic pollution in agricultural land and water; groundwater depletion; climate change and agriculture; sustainable resource conservation strategies. |
| II | Sustainable agriculture and plant protection techniques |
| 2.1 | Concept, principles and goals of sustainable agriculture; agroecology, conservation agriculture, natural farming and climate-smart agriculture; land degradation and conservation of natural resources. |
| 2.2 | Organic farming—objectives, importance and scope; organic certification and marketing; compost, farmyard manure, vermicompost and green manure; biofertilizers and biopesticides—types, preparation and application. |
| 2.3 | Essential plant nutrients—macro and micro nutrients; nutrient deficiency symptoms; integrated nutrient management practices; fertilizers—classification, nutrient composition and methods of application; soil testing and nutrient management planning. |
| 2.4 | Types of pests and diseases; principles and approaches of Integrated Pest Management (IPM); biological, cultural, mechanical and chemical control methods; host plant resistance, biocontrol agents and biotechnological approaches. |
| III | Crop production techniques |
| 3.1 | Improved production practices of cereals, pulses, oilseeds and fibre crops; climate-resilient crop varieties; System of Rice Intensification (SRI); post-harvest management and storage. |
| 3.2 | Importance of vegetable cultivation; production technology of major vegetables—tomato, brinjal, cucumber, onion and potato; protected cultivation, nursery management and rooftop/kitchen gardening. |
| 3.3 | Commercial importance of fruits; orchard establishment, planting systems and propagation methods; production technology of mango, guava and banana; medicinal and aromatic plants—importance, cultivation and economic value. |
| 3.4 | Concept and models of kitchen garden; nutritional security through horticulture; urban and peri-urban agriculture; value addition and marketing of horticultural products. |
| IV | Integrated Farming system |
| 4.1 | Meaning, objectives, scope and components of IFS; advantages and limitations; resource recycling and circular economy in farming; sustainable livelihood generation through IFS. |
| 4.2 | Integrated farming models for different agro-climatic regions; crop-livestock-fish integration; agroforestry systems; multilayer and mixed farming systems. |
| 4.3 | IFS in flood-prone, drought-prone and coastal areas; disaster-resilient agriculture; climate adaptation and mitigation strategies in farming systems. |
| 4.4 | Agri-entrepreneurship and rural employment opportunities; value addition and farm-based enterprises; ICT and GIS applications in agriculture; farmer training, extension services and participatory approaches. |

Suggested Reading

1. Introductory Soil Science Das, D.K. (2014). *Introductory Soil Science*. New Delhi: Kalyani Publishers.
2. Fundamentals of Soil Science Indian Society of Soil Science. (2012). *Fundamentals of Soil Science*. New Delhi: Indian Society of Soil Science.
3. Principles of Agronomy Reddy, T.Y. & Reddi, G.H.S. (2017). *Principles of Agronomy*. New Delhi: Kalyani Publishers.
4. Soil and Water Conservation Engineering Suresh, R. (2013). *Soil and Water Conservation Engineering*. New Delhi: Standard Publishers Distributors.
5. Organic Farming: Theory and Practice Palaniappan, S.P. & Annadurai, K. (2018). *Organic Farming: Theory and Practice*. New Delhi: Scientific Publishers.
6. Sustainable Agriculture Fageria, N.K. (2012). *Sustainable Agriculture*. Boca Raton: CRC Press.
7. Biofertilizers and Biopesticides Subba Rao, K. (2017). *Biofertilizers and Biopesticides*. New Delhi: Oxford & IBH Publishing.
8. Handbook of Agriculture ICAR. (2019). *Handbook of Agriculture*. New Delhi: ICAR Publications.
9. Textbook of Horticulture Peter, K.V. (Ed.). (2015). *Textbook of Horticulture*. New Delhi: New India Publishing Agency.
10. Vegetable Crops Bose, T.K. & Som, M.G. (2016). *Vegetable Crops*. Kolkata: Naya Prokash.
11. Fruit Crops Bal, J.S. (2014). *Fruit Crops*. Ludhiana: Kalyani Publishers.
12. Integrated Pest Management Dent, D. (2000). *Integrated Pest Management*. London: Chapman and Hall.
13. Climate Smart Agriculture FAO. (2013). *Climate Smart Agriculture Sourcebook*. Rome: FAO Publications.
14. Integrated Farming System Practices Yadav, R.L. & Meena, B.S. (2019). *Integrated Farming System Practices*. New Delhi: ICAR Publications.
15. National Bank for Agriculture and Rural Development NABARD. (2020). *Watershed Development and Rural Livelihood Programmes*. Mumbai: NABARD Publications.

Elective Course 1(Theory):-**(MRS2PDSE01T-C) Rural Tourism and Value Addition to Communities** (50marks; 4 credits)

Tourism is a driver of economic development and its linkage with other production sectors boosts development in rural areas. The imperative of achieving economic, social and environmental sustainability in local communities is conducive to tourism. The students will be generated knowledge on the natural and cultural capital of the rural areas through the lens of tourist products.

Outcome : Prospective job opportunities at the individual and community level through product based tourism, as a local tourist guide and entrepreneur

| Unit | Topic |
|-----------|---|
| I | Conceptual issues in Rural Tourism |
| 1.1 | Concept of Tourism, definition, Tourism versus Leisure, Tourist, Traveller, Visitor, Tourism and Environment, Tourism and online transactions |
| 1.2 | Typology of Tourism & Tourist resources: Natural and man-made and their changing nature |
| 1.3 | Tourism Paradigms: Eco-tourism, Green Tourism, Heritage Tourism, Soft and hard Tourism and adventure tourism etc. |
| 1.4 | Nature and importance of rural Tourism: Tourism Potentials, Tourism and Sustainable Development, |
| II | Infrastructural Development & Tourism |

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| 2.1 | Mass Tourism Pilgrimage during Sankranti, Snan Jatra and Haj Yatra |
| 2.2 | Accommodation : Hotels and Restaurants & Guest Houses |
| 2.3 | Transport Facilities – Interaction and Communication Facilities – Other Promotional Activities |
| 2.4 | Tourism Promotion Agencies in India: Functions and characteristics. Tourism Circuits & Campaigns: Government and non- Government Organizations |
| III | Stakeholders of Rural Tourism in India |
| 3.1 | Role of Central Government Ministries :Tourism Planning and Policies at National level Incredible India Campaign. |
| 3.2 | PRI : Tourism Planning and Policies at Local level |
| 3.3 | PPP , NGOs && Private Organizations |
| 3.4 | Tourism and governance :Role in disaster management in tourist centric areas : landslides, floods ,cyclones and COVID |
| IV | Sustainable Rural Tourism & Employment Generation |
| 4.1 | Local opportunities at the individual level Part-time Guide – Scope in Marketing – Catering , Vendors , infrastructure |
| 4.2 | Local opportunities at the Community level participation through Homestays in Hills and Forests, through local transport , lodging and fooding |
| 4.3 | Product based tourism and its impact on local rural economy: |
| 4.4 | Governmental opportunities : Skill enhancement courses and training , product sale tie up in mela/hubs |

Suggested Readings

1. Tourism Development – A New Approach — Nagapathi, K.S. (2008). Tourism Development: A New Approach. Concept Publishing Company, New Delhi.
2. Tourism: Planning and Approaches — Lama, B. (2010). Tourism: Planning and Approaches. Deep & Deep Publications Pvt. Ltd., New Delhi.
3. Rural Tourism: Challenges and Paradigm — Prudhi, R. (2012). Rural Tourism: Challenges and Paradigm. Discovery Publishing House Pvt. Ltd., New Delhi.
4. Rural Tourism: An International Perspective — Dashper, K. (2014). Rural Tourism: An International Perspective. Cambridge Scholars Publishing, Newcastle upon Tyne, UK.
5. Sustainable Tourism — Bhatt, H. and Badhan, B.S. (2010). Sustainable Tourism. Commonwealth Publishers, New Delhi.
6. Tourism: Concept and Dimensions — Sinha, P.C. (2007). Tourism: Concept and Dimensions. Anmol Publications Pvt. Ltd., New Delhi.
7. Rural Tourism: An Introduction — Sharpley, R. and Sharpley, J. (1997). Rural Tourism: An Introduction. Routledge, London.
8. Village Tourism — Kulkarni, S. (2011). Village Tourism. Yking Books, New Delhi.
9. Tourism Strategies and Rural Development — Organisation for Economic Co-operation and Development (1994). Tourism Strategies and Rural Development. OECD Publications, Paris.

SEC (Mixed): (MRS2PSEC01M): Application of GIS and GPS in Rural Studies

(50 Marks, 2 Credits)

The course aims to provide students with fundamental knowledge and practical skills in Geographic Information System (GIS), Global Positioning System (GPS), and Remote Sensing for rural studies

and rural development planning. It seeks to develop an understanding of spatial and non-spatial data, map projections, GIS data models, satellite imagery, and GPS applications and enhance ability to use geo-informatics tools for resource mapping, rural planning, environmental management, and decision-making processes.

Outcome: After completion of the course, students will be able to understand the basic concepts and components of GIS, GPS, and Remote Sensing and their significance in rural studies. They will acquire practical skills in handling spatial data, geo-referencing maps, spatial analysis using GIS software. Students will also be capable of interpreting satellite data, using GPS for field data collection, and preparing thematic maps for rural resource management and planning.

| Unit | Topic |
|------------|---|
| I | Basics of GIS |
| 1.1 | Introduction to GIS: Definition; components. Spatial and non-spatial data. Uses in rural development |
| 1.2 | GIS-Cartography interface; Projection and spatial registration; Ground control points |
| 1.3 | GIS Data models: Raster and Vector. Uses |
| 1.4 | UTM Projection: concept, uses |
| II | Introduction to GPS |
| 2.1 | GPS - definition, segments of GPS, types: hand held & DGPS, advantages and limitation in using GPS, |
| 2.2 | Global Satellite Navigation Systems (GNSS): global, regional, augmentation systems |
| 2.3 | GPS for GIS and Mapping |
| 2.4 | Applications of GPS |
| III | Application of GIS & GPS |
| 3.1 | Geo-referencing and accuracy validation. |
| 3.2 | Digitization, editing and topology building: point, line and polygon. |
| 3.3 | Generation of attribute table, data manipulation and map generation, Application of spatial operators and buffering, Overlaying of raster and vector data for creation of final layout. |
| 3.4 | Recording location coordinates in hand-held GPS and its mapping in GIS platform; Integrated use of google earth engine and GPS for mapping of locations |
| IV | Laboratory Note Book & Viva Voce |

Suggested Readings:

1. Basics of Remote Sensing and GIS — Kumar, S. (2011). *Basics of Remote Sensing and GIS*. Laxmi Publications, New Delhi.
2. Geographic Information System — Pandey, J. and Pathak, D. (2014). *Geographic Information System*. The Energy and Resources Institute (TERI), New Delhi.
3. Concepts and Techniques of Geographic Information Systems — Lo, C.P. and Yeung, A.K.W. (2014). *Concepts and Techniques of Geographic Information Systems* (2nd Edition). Pearson Education, New Delhi.
4. Remote Sensing and Image Interpretation — Lillesand, T.M., Kiefer, R.W. and Chipman, J.W. (2015). *Remote Sensing and Image Interpretation* (7th Edition). Wiley India Pvt. Ltd., New Delhi.
5. Fundamentals of Remote Sensing and GIS — Sinha, S.K. (2008). *Fundamentals of Remote Sensing and GIS*. Satish Serial Publishing House, Delhi.
6. Remote Sensing and GIS — Bhatta, B. (2011). *Remote Sensing and GIS*. Oxford University Press, New Delhi.

SEMESTER-IV

CORE COURSE (Theory) – 15: (MRS2PCOR15T): Women, Rural Development and Indian Knowledge System (50 marks; 4 credits)

This course tries to bring out how the spaces are different for men and women in rural India. It outlines the conceptual component of gender and women's work followed by the place of women in Indian planning and policies. It also explores the position of women within the farm and non-farm sector in the rural areas.

Outcome: The students would understand that specific women focus is essential for rural planning and development.

| Unit | Topic |
|------------|---|
| I | Conceptualizing Gender |
| 1.1 | Gender from the sociological perspective and interpretations |
| 1.2 | Gender from the economic perspective and interpretations |
| 1.3 | Gender from the political perspective and interpretations |
| 1.4 | Feminism : Women development and empowerment |
| II | International & National development discourse on women |
| 2.1 | Theories of development : empowerment & Inclusive Development |
| 2.2 | Alternative approaches : WIDWAD & GAD |
| 2.3 | MDGs & SDGs on women : education, health , poverty alleviation , empowerment |
| 2.4 | Policy and programmes in India: Women development approaches in Five year plans, Capacity building and empowerment strategies, Gender budgeting |
| III | Women in Rural Society of India |
| 3.1 | Role of gender inequality, status of women in different ages, nature of women disabilities in Indian society |
| 3.2 | Women and Natural resource management |
| 3.3 | Women and Indigenous Knowledge Skills and practices |
| 3.4 | Community level participation Capacity building and empowerment through SHGs |
| IV | Dimensions of Women's work in Rural India |
| 4.1 | Women and rural work: concept of work; productive & non productive work, labour market segmentations, Women work participation |
| 4.2 | Women and Agriculture: Changing nature of gender relation in agriculture; impact of technological change; impact of globalization |
| 4.3 | Women in rural non-farm sector: agriculture linkage; urbanization linkage; Impact of globalization |
| 4.4 | Rural women work related specific programmes |

Suggested Readings:

1. Pahl, R. E. (1988): *On Work: Historical, Comparative and Theoretical Approaches*, Basil Blackwell, New York.
2. Jenkins, Sarah (2004): *Gender, Place and the Labour Market*, Ashgate.
3. Pravin Visaria and Rakesh Basant (1994): *Non- Agricultural Employment in India: Trends and*

Prospects, Sage Publications, NewDelhi.

4. T. S. Papola & Alakh N. Sharma (1999): *Gender and Employment*, Vikas Publishing House Pvt. Ltd, NewDelhi.
5. Empowering Rural Women, Sujit Kr. Datta, Dr. Dilip Kr. Ghosh, Akansha Publishing House, 2002.
6. Rural Women Empowerment, Sawalia Bihari Verma, Shiw Kr. Jiloka. Kumari Jyoti Kushwah, Deep & Deep Publications Pvt. Ltd., 2006.
7. Development and Empowerment : Rural Women in India, Jaya Arunachalam, U. Kalpagam, Rawat Publications, 2006

**CORE COURSE (Theory): – 16 (MRS2PCOR16T) Natural Resource and Environment
(50marks; 4 credits)**

The course seeks to impart the basic concepts of ecology and environmental management. It discusses the management issues for some of the key rural natural resources that are especially stressed in the recent times.

Outcome: It would encourage consciousness about the environment, its gradual degradation arising out of mismanagement and overuse and how to introduce sustainable natural resource management practices.

| Unit | Topic |
|------------|--|
| I | Concept of Environment and Natural Resources |
| 1.1 | Environment, Ecology, Ecosystem- concept, structure and components. Environment and economy. Agro-ecosystems concept |
| 1.2 | Natural resources: Concept and the notion of scarcity; Classification of Natural resources: renewable, non-renewable, stock, flow, reserves. Natural resource sustainability. |
| 1.3 | Land suitability analysis; carrying capacity; Land use planning. |
| 1.4 | Environmental Impact Assessment (EIA) - Concept, objectives, principles. EIA in India. |
| II | Natural Resources and Sustainable Rural Development |
| 2.1 | Sustainable rural development; Role of natural resource management in sustainable rural development. |
| 2.2 | Land Resources; rural land use dynamics and its changing nature in post global India. |
| 2.3 | Water Resources: surface and ground water sources, availability and utilization. |
| 2.4 | Common Property Resources: Concept, extent of availability, utilization and recent trends. Characteristics of CPR, Theories and models of CPR Management. Conservation of CPRs |
| III | Environmental Issues in Indian Agriculture |
| 3.1 | Linkage between agricultural development & the environment: Soil related, water related, air related, biodiversity related |
| 3.2 | Land degradation: processes, causes and consequences. |

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| 3.3 | Water resource depletion for agriculture: processes, causes and consequences. |
| 3.4 | Agricultural policies & their impact on the environment: input & output price policies, investment policies, trade policies. |
| IV | Conservation of Environment & Natural Resources |
| 4.1 | Women and environment. Role of women in natural resource management. (Case studies in India) |
| 4.2 | Community based natural resource management (CBNRM)/Participatory natural resource management |
| 4.3 | Watershed based natural resource management systems & recent management practices |
| 4.4 | National Action Plan on Climate Change |

Suggested Readings:

1. Hussen, Ahmed M (2000): Principles of Environmental Economics, Routledge, London & New York.
2. Smith, K and David N Petley (2009): Environmental Hazards: Assessing Risk and Reducing Disaster, 5th Edition, Routledge, London and New York.
3. Wheeler, J.O., Muller, P.O., Thrall, G.I., Fik, T.J. 1998. Economic Geography, 3rd ed, Wiley.
4. Coe N. M., Kelly P. F. and Yeung H. W., 2007: Economic Geography: A Contemporary Introduction, Wiley Blackwell.
5. Singh, S. 2013. Environmental Geography, Prayag Pustak Bhawan.
6. Odum, E.P., Barrett, G.W. 2005. Fundamentals of Ecology, Cengage Learning.
7. Sharma, P.D. 2011. Ecology and Environment, Rastogi Publications.
8. Gilpin, A., 1994. Environmental Impact Assessment: Cutting Edge for the 21st Century, Cambridge University Press.
9. Goudie, A. 2001. 2013. The Human Impact on the Natural Environment: Past, Present, and Future, 7th ed, Wiley-Blackwell.
10. Chadha, G. K, S. Sen and H. R. Sharma (2004): *Land Resources: State of Indian Farmer: a Millennium Study*, Department of Agriculture and Cooperation. Ministry of Agriculture, Academic Foundation, New Delhi.
11. Footprints in the Jungle: Natural Resource Industries, Infrastructure, and Biodiversity Conservation by Ian A Bowles
12. Developing Groundwater by Alan Macdonald and Jeff Davies
13. Clayton B.D., Dent D. & Dubois O. (2000): Rural Planning in the Developing World with a Special Focus on Natural Resources: Lessons Learned and Potential Contributions to Sustainable Livelihoods, International Institute for Environment and Development (IIED), Environmental Planning Issues No. 20

CORE COURSE (Mixed):-17: (MRS2PCOR17M): Extension Education and Communication

(50 marks; (3+1) credits)

The course aims at imparting the knowledge of extension and communication practice and its application to improve the rural life in different aspects. To inculcate the skill development communication materials and use the communication materials for effective communication like Social and Behavior change communication.

Outcome: Students will be able to act as an extension personnel who can use different tools in field of extension and developmental communication. They will act as a prime agent for the knowledge and technology dissemination.

| Unit | Topic |
|-------------|--|
| I | Rural Extension |
| 1.1 | Extension Education-concept, definition-philosophy, objectives, principles, scope; extension educational process, Teaching-learning process, Elements of a learning situation, Motivation in Extension |
| 1.2 | Extension teaching methods: concept, classification, advantage and limitation of each method |
| 1.3 | Audio-Visual Aids: concept, classification |
| 1.4 | New trend in Extension: Private Extension, market led extension, PPP, Cyber extension, e-extension |
| II | Adoption of Innovations and Programme Planning |
| 2.1 | Innovation-Concept, function and meaning, attributes of innovation, Preventive innovation, Innovation Decision Process and types |
| 2.2 | Adoption and Diffusion of innovation: concept, the adoption process, Adopter Categories, Factors of adoption, Measurement of adoption, Gap analysis in technology transfer |
| 2.3 | Extension Programme Planning: concept, need, principles; Steps in extension programme planning |
| 2.4 | Nature of Programme planning processes, Scope of Programme planning; Role of extension agent in programme planning, Planning for transfer of technology |
| III | Communication |
| 3.1 | Communication-concept, definition, elements, Problems in communication |
| 3.2 | Different models in communication, Communication gap, communication fidelity, noise and noise control |
| 3.3 | Methods of communication-Individual methods, Group methods and mass methods, |
| 3.4 | Communicator categories, Role of communicator in extension education process. |
| IV | Development and dissemination of IEC materials (Practical) (1 credit) |
| 4.1 | Prepare leaflet/ pamphlet/ booklet related to social developmental issues |
| 4.2 | Prepare a poster on relevant social issue |
| 4.3 | Prepare a audio capsule related to relevant developmental issues and produce for dissemination |
| 4.4 | Use the developed IEC material in a rural extension programme |

Suggested Readings:

1. Kelsey, L. D., & Hearne, C. C. (1963). *Extension Education*. New York: McGraw Hill Book Company.
2. Singh, R. P. (1988). *Agricultural Extension*. New Delhi: Ashish Publishing House.
3. Bhatnagar, A. (1996). *Extension Education and Communication*. Lucknow: International Book Distributing Co.
4. Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). New York: Free Press.

5. Narula, U. (1994). *Development Communication: Theory and Practice*. New Delhi: Har-Anand Publications.
6. Sandhu, A. S. (1993). *Textbook on Agricultural Communication: Process and Methods*. New Delhi: Oxford & IBH Publishing Co.
7. Pandey, V. C. (2005). *Rural Development and Extension Education*. New Delhi: Isha Books.
8. Kumar, K. J. (2006). *Mass Communication in India* (3rd ed.). Mumbai: Jaico Publishing House.
9. Ray, G. L. (1991). *Extension Communication and Management*. Calcutta: Naya Prakash.
10. Mondal, S., & Mishra, O. P. (2020). *Fundamentals of Extension Education and Rural Development with Practical*. New Delhi: Kalyani Publishers.
11. Shruti, S. (2014). *Instant Extension Communication*. Jodhpur: Agrobios (India).
12. Agarwal, A. (2010). *Essential Communication Skills*. New Delhi: Prentice Hall India.

Elective Course 2(Theory):(MRS2PDSE02T-A): Disaster Studies II

(50marks; 4 credits)

This course imparts knowledge on disasters that are specifically of concern for the coastal communities. West Bengal, having the estuarine environment and being a house to the world heritage site of the Sundarbans, this course tries to discuss the vulnerabilities that arise out of the conflicts between the land-water interface as well as the coastal community- wild life interface.

Outcome: The students would be able to appreciate the specific disaster issues for the coastal communities in West Bengal and the major disaster risk reduction initiative and their appraisal.

| Unit | Topic |
|------------|---|
| I | Coastal Hazard Management |
| 1.1 | Concept of the coast and environmental issues along coastlines. |
| 1.2 | Major hazards along the coasts: coastal storms, erosion, water issues. |
| 1.3 | Management of coastal hazards |
| 1.4 | Coastal zone regulations and land use planning for disaster risk reduction from coastal hazards. |
| II | Coastal Communities in India |
| 2.1 | Coastal communities: population densities and its relevance for coastal hazards. |
| 2.2 | Demography of coastal communities in India |
| 2.3 | Coastal economy: major livelihoods and activities along coasts and their implications for the environment. |
| 2.4 | Assessment of vulnerability of coastal communities: frameworks, trends and patterns |
| III | Vulnerabilities of the rural coastal communities in the Bengal Delta/ Sundarbans |
| 3.1 | The dynamic ecosystem of the Sundarbans: evolution of the man-environment interaction. Salient features of the Sundarban eco-region. Physical vulnerability of coastal communities: cyclones, coastal erosion, salinization. Climate change |
| 3.2 | Agriculture and aquaculture dependent livelihoods: major challenges and opportunities |
| 3.3 | Socio-economic vulnerabilities-developmental deficits |
| 3.4 | Institutional Vulnerabilities: ambiguities in the management and development of the Sundarbans. |

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| IV | Disaster management for rural coastal communities in BengalDelta/ Sundarbans |
| 4.1 | Role of local institutions in disaster management: government and non-government, community. |
| 4.2 | Disaster management policy for coastal West Bengal |
| 4.3 | Resilience & adaptation: Migration and the “Trapped” population in the Sundarbans; resettlement of environmental refugee. |
| 4.4 | Appraisal of Case studies of disaster management: recent extreme events |

Suggested Reading

1. Almutairi A., Mourshed M. & Ameen R. F. M. (2020): Coastal community resilience frameworks for disaster risk management, *Natural Hazards* (2020) 101:595–630, Springer; p. 595-630
2. Behera A. (2002): Government - NGO Collaboration for Disaster Reduction and Response: The India (Orissa) Experience, Regional Workshop on Networking and Collaboration among NGOs of Asian Countries in Disaster Reduction and Response.
3. Carter R.W.G. (1991): *Coastal Environments An Introduction to the Physical, Ecological and Cultural Systems of Coastlines*, Academic Press Limited, London.
4. Clayton B.D., Dent D. & Dubois O. (2000): Rural Planning in the Developing World with a Special Focus on Natural Resources: Lessons Learned and Potential Contributions to Sustainable Livelihoods, *International Institute for Environment and Development (IIED), Environmental Planning Issues No. 20*
5. Courtney C.A., Ahmed A.K., Jackson R., McKinnie D., Rubinoff P., Stein A., Tighe S. and White A. (2008): Coastal Community Resilience in the Indian Ocean region: a Unifying Framework, Assessment, and Lessons Learned, *Solutions to Coastal Disasters Congress 2008, ASCE*.
6. DasGupta R. & Shaw R. (2015): An indicator based approach to assess coastal communities’ resilience against climate related disasters in Indian Sundarbans, *J Coast Conserv* (2015) 19:85–101, Springer, DOI 10.1007/s11852-014-0369-1.
7. *Enhancing Climate Resilience of India’s Coastal Communities* (2019), United Nations Development Programme, Green Climate Fund, New Delhi.
8. Guleria S. & Moktan A. (2020): Training Module on Integration of Disaster Risk Reduction and Climate Change Adaptation into Rural Development Policies and Programmes, National Institute of Disaster Management (NIDM), New Delhi.
9. Ha H., Fernando R. L. S. & Mahajan S. K.: *Disaster Risk Management Case Studies in South Asian Countries*, FOREWORD, Business Expert Press.
10. Moulin-Acevado M. (2002): NGO and UN-OCHA, Regional Workshop on Networking and Collaboration among NGOs of Asian Countries in Disaster Reduction and Response
11. Wisner B., Blaikie P., Cannon T. and Davis I. (2004): *At Risk Natural hazards, people’s vulnerability and disasters*, Routledge Taylor & Francis Group, New York.

Elective Course 2 (Theory)- (MRS2PDSE02T-B): Sustainable Agribusiness Management

(50 marks; 4 credits)

Farm Business management is an elective course for the student that provides knowledge on effective farm operations. Planning for farming operations, farming options, opportunity, best methods of operation, maximization of profit determine the effectiveness of the farm manager and his/her knowledge

on farm management. The course has also structured to provide a overall financial, physical management of a farm.

Outcome: After completion of this course student will be knowledgeable to act as a successful farm manager. He/she can also plan for better farming options for maximization of profit. The skills on farm management as well as critical farm management decisions will be developed.

| Unit | Topic |
|-------------|---|
| I | Farm Management |
| 1.1 | Farm Management-concept, scope, importance, agribusiness management and sustainable agriculture; role and functions of farm manager; characteristics and competencies of successful agribusiness managers. |
| 1.2 | Nature and characteristics of farm management science. Typical farm management decisions-Production and Organizations decisions, Administrative decisions and Marketing decisions |
| 1.3 | Characteristics and classification of farms; size and types of farming systems; role of government policies and agricultural institutions. |
| 1.4 | Concept and scope of production economics; product and production relationships; principles of sustainable production; efficiency in resource use |
| II | Production Relationships |
| 2.1 | Production functions; Total Product (TP), Average Product (AP) and Marginal Product (MP); stages and regions of production; law of diminishing returns; optimization of input use in sustainable agriculture. |
| 2.2 | Concept and classification of costs; fixed, variable, explicit, implicit and opportunity costs; cost-output relationships; net revenue analysis; break-even analysis; profit maximization and minimum loss principle. |
| 2.3 | Factor-factor relationship: Isoquants; Different types of factor-factor relationships ;Iso-cost lines; least cost combination; Optimum level of output determination |
| 2.4 | Product-product relationship; Production possibility curve, Determination optimum production combination, Profit maximization through product-product combination. |
| III | Farm Business Analysis and Agripreneurship |
| 3.1 | Farm Business analysis-Meaning, importance and scope of farm business analysis; principles of farm accounting |
| 3.2 | Meaning, importance and scope of farm business analysis; principles of farm accounting |
| 3.3 | Preparation of income statement, balance sheet and cash flow statement; farm efficiency measures; project appraisal techniques; cost-benefit analysis and business evaluation. |
| 3.4 | Concept and scope of agripreneurship; agri-startups and rural enterprises; agricultural marketing, branding, packaging and e-marketing of farm products. |
| IV | Sustainable Resource, Labour and Risk Management |
| 4.1 | Agricultural finance and farm credit; role of institutional and non-institutional credit; financial feasibility analysis; crop insurance; microfinance and self-help groups in agribusiness. |
| 4.2 | Farm layout and land-use planning; irrigation and soil management strategies; mechanization and precision agriculture; ICT, GIS and smart technologies in agriculture; climate-smart farming practices. |
| 4.3 | Farm labour—classification and characteristics; labour problems in Indian agriculture; |

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| | labour efficiency and productivity; gender dimensions in farm labour; skill development and rural employment generation. |
| 4.4 | Agricultural risks and uncertainties—price fluctuation, climatic hazards, pest outbreak and market instability; disaster-resilient farm planning; alternative enterprise planning; adaptation and mitigation strategies in sustainable agribusiness. |

Suggested Readings:

1. Dillon, J. L., & Hardaker, J. B. (1993). *Farm Management Research for Small Farmer Development*. Rome: Food and Agriculture Organization (FAO).
2. Doll, J. P., & Orazem, F. (1984). *Production Economics: Theory with Applications* (2nd ed.). New York: John Wiley & Sons.
3. Heady, E. O., & Jensen, H. R. (1954). *Farm Management Economics*. New Delhi: Prentice Hall of India.
4. Kay, R. D., Edwards, W. M., & Duffy, P. A. (2016). *Farm Management* (8th ed.). New York: McGraw Hill Education.
5. Pandey, U. K., & Tewari, D. D. (2010). *Farm Management and Production Economics*. New Delhi: Kalyani Publishers.
6. Raju, V. T., & Rao, D. V. H. (1990). *Economics of Farm Production and Management*. New Delhi: Oxford & IBH Publishing Co.
7. Sadhu, A. N., & Singh, A. (2018). *Fundamentals of Agricultural Economics*. Mumbai: Himalaya Publishing House.
8. Singh, I. J. (2012). *Elements of Farm Management*. New Delhi: Kalyani Publishers.
9. Subba Reddy, S., Raghu Ram, P., Sastry, T. V. N., & Devi, I. B. (2017). *Agricultural Economics*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
10. Tripathi, H., & Reddy, E. A. (2014). *Principles of Agribusiness Management*. New Delhi: Kalyani Publishers.
11. Mondal, S. (2021). *Agribusiness Management and Rural Entrepreneurship*. New Delhi: Kalyani Publishers.
12. Debertin, D. L. (2012). *Agricultural Production Economics* (2nd ed.). Lexington: CreateSpace Independent Publishing Platform.
13. Downey, W. D., & Erickson, S. P. (2008). *Agribusiness Management* (4th ed.). New Delhi: McGraw Hill Education.
14. Bhattacharya, P., & Banerjee, B. (2015). *Farm Planning and Resource Management*. New Delhi: Narendra Publishing House.
15. Johl, S. S., & Kapur, T. R. (2006). *Fundamentals of Farm Business Management*. New Delhi: Kalyani Publishers.

Elective Course 2 (Theory):- (MRS2PDSE02T-C) Rural Culture, Heritage and Tourism Development in West Bengal (50 marks; 4 credits)

“Heritage” in rural India encompasses almost all aspects of life: monuments and historic structures, performing and visual arts, crafts and artisan skills, traditional knowledge in agriculture, water management, and medicine, and the heritage and history embedded in mythology, folklore, ritual, and language. Traditional crafts have survived in West Bengal because rural folk still make and use them. These are visual dialogues between the craftsmen and culture of the land.

Outcome : Case studies on the various facets as an exemplar from West Bengal in particular, will set new benchmarks for rural development and promotion of local culture. Heritage and culture and rural tourism are tools capable to boost local economy, community mobilization and conservation and in sustainable renewal of resources. The course will also provide prospective job opportunities in government and NGO departments and many can act as independent entrepreneurs themselves.

| Unit | Topic |
|------------|--|
| I | Rural regeneration through Tourism in West Bengal |
| 1.1 | Scope ,Nature and Significance of Rural Tourism in West Bengal : Gender and Tourism, Eco tourism, Handicraft tourism, Religious tourism, Home stay tourism, Heritage Tourism |
| 1.2 | Craft and Handicraft based tourism :Problems , Potentialities and intervention measures |
| 1.3 | Nature based tourism :Problems , Potentialities and intervention measures |
| 1.4 | Disaster and Tourism: Implications in vulnerable areas on habitat and society |
| II | Tangible and intangible Indigenous products of Rural West Bengal: |
| 2.1 | Cottage industry &its products : Potters (Terracotta) metalsmiths (Dokra); Chitrakars; Weavers : Handloom (Tant cotton and silk); Chou Mask making ; Boat making(inBalagarh), bidi (in Murshidabad). |
| 2.2 | Folk culture and its revival :Bauls, Bhatiali and Bhawaiya; Ballads (Mangal kavya) |
| 2.3 | Jatra, Kirtan, Bhajan, Ram Lila, Jalsha, Karbala |
| 2.4 | Revival strategies through Social welfare measures by Government of West Bengal towards the artisans: tool kit, health, education, employment and social security. |
| III | Cultural Hubs of Rural West Bengal |
| 3.1 | Intervention Policies at the state level since Independence |
| 3.2 | Western districts: Cultural capital, potentials and value addition to local community through various stakeholders |
| 3.3 | Northern districts: Cultural capital, potentials and value addition to local community through various stakeholders |
| 3.4 | Southern districts: Cultural capital, potentials and value addition to local community through various stakeholders |
| IV | Tourism planning based on Cultural Hubs of Rural West Bengal |
| 4.1 | Intervention Policies at the state level since 2000: Tourism Policy of 2008 & 2016; Role of WBTDCL Biswa Bangla Campaign |
| 4.2 | Western districts: Art and craft village tourism |
| 4.3 | Northern districts: Nature and wild life tourism ;Public Private Partnership (PPP) model in Gajoldoba |
| 4.4 | Southern districts: Integrated Ecotourism Development Plan |

Suggested Readings :

1. Nicholas Ralph *Thirteen festivals: a ritual year in Bengal*, Orient Blackswan
2. Sinha, P. C, 2007, *Tourism: Concept & Dimensions*, Anmol Publication, New Delhi
3. CH Buck (1917) *Faith, fair and festivals of India* , e book (2014) , Publisher: Forgotten books , London
4. Tarapada Santra: *Folk Arts of West Bengal and the Artist Community*. Niyogi Books
5. Bhabesh Das Gupta,2002, *Folk Culture of West Bengal*.

6. Stevenson Richard(ed): *Village Life in Bengal Hindu Customs in Bengal*
7. Sabyasachi Lodh, 1979:*Thematic analysis of tribal folk tales and folk songs of West Bengal*; Cultural Research Institute, Scheduled Castes and Tribes Welfare Dept., Govt. of West Bengal in Calcutta
8. Sufia M. Uddin 2019; Religion, Nature, and Life in the Sundarbans *Asian Ethnology* Volume 78, Number 2 ,pp, 289–309
9. Jawhar Sircar, 2016:The Construction of the Hindu identity in Medieval Western Bengal: The Role Of Popular Cults; Institute of Development Studies, Kolkata
10. Ilan Kelman 2007:Sustainable Livelihoods from Natural Heritage on Islands *Island Studies Journal*, Vol. 2, No. 1, pp. 101-114
11. Sujit Sur2006 Folk Deities of Sundarbans: Some Observations, *The Oriental Anthropologist*; 6(1): 168-191

CORE COURSE PRACTICAL – 18 : (MRS2PCOR18P) :Internship

(50 Marks; 4 Credits)

Internship in Rural Institution/ Organization (1 month)

This course seeks to develop industrial as well as institutional linkages to impart opportunity to work while the students learn through active engagement in formal institutional structure. On one hand, it would help them to gain experience, refine their working skills and build confidence; on the other hand, it would also enable them to identify their career path. On the whole, the internship programme targets to impart the essential skills to the students that are relevant for acquiring an edge over others in the jobmarket.

Outcome: Students would be able to have a clearer career vision, self confidence and the required skills to benefit in the job market.

The participation certificate to the Internship Programme will be furnished by the concerned Internship Programme organizer after due completion by each student. The students will be evaluated on this Internship programme by the internal faculty members based on their participating and duly obtaining a Certificate (40 marks) and the host institute will evaluate on and submit marks on different components of evaluate (10 marks weightage).

CORE COURSE PRACTICAL – 19 : (MRS2PCOR19P): Dissertation

(50 Marks; 4 Credits)

Dissertation as a research project will be based on the choice of topic related to any rural issues or relevant fields. This exercise attempts to enable the students to formulate a research problem, outline its methodologies and manage the research initiative completely to produce the final report.

Outcome: The course develops practical knowledge, enabling students to link theory with real rural

challenges. It also builds critical thinking, academic writing, communication, and independent research skills in rural development.

The Report must be documented in duplicate (1 = examinee, 1 = Departmental library) under the following Heads:

- Introduction and Conceptual Background;
- Statement of the Problem;
- Objectives of Study;
- Literature Review;
- Methodology including data / information / map collection;
- Location of the Study Area;
- Analysis, Display and Interpretation of Data (relating to each objective separately); and
- Conclusion.

The Dissertation Paper should contain • Acknowledgement, • Preface, • Table of Content, • List of Tables, • List of Figures, • List of Plates, • References and • Appendix.

Word Limit = 10000 (maximum) (Computer typed) ;Line Spacing = 1.5; Font = Times New Roman font size = 12

PPT presentation : Each Examinee shall present his / her Dissertation before the Internal & External Examiner on the day of Examination. There will be a maximum of 25 slides about - concept / idea / theme; major objectives; methodology; study area; observations and analysis; conclusion. Time allotted for each presentation = 15 minutes + 5 minutes interaction with External Examiner. The continuous evaluation will be done by the concerned internal faculty while the External Examiner will evaluate based on power point presentation and interaction in an 80:20 ratio.



