DR. B.R. AMBEDKAR UNIVERSITY, AGRA

**Proposed Course Structure for
M.Sc. (Ag.) Agricultural Extension
under Semester System to be imposed from Academic
Session – 2019-20**

M.Sc. (Agriculture) Agricultural Extension (Semester – Wise)

M.Sc. (Ag.) Agricultural Extension
Semester wise Course Distribution

First Semester

Course No.	Course Title	Credit Hours
EXT 501	Development Perspectives of Extension Education	3(2+1)
EXT 502	Development Communication And Information Management	3(2+1)
EXT 503	Diffusion and Adoption of innovations	3(2+1)
*EXT 511	Perspectives of Distance Education	4(3+1)
AST 502	Statistical Methods	3(2+1)
	Total	**12**

* Special paper – in lieu of thesis

Second Semester

Course No.	Course Title	Credit Hours
EXT 504	Human Resource Development	3(2+1)
EXT 505	Entrepreneurship Development and Management in Extension	3(2+1)
EXT 506	Visual Communication	3(2+1)
*EXT 512	Gender sensitization for development	4(3+1)
AST 503	Computer Application in Agriculture	2 (1+1)
	Total	**11**

* Special paper – in lieu of thesis

Third Semester

Course No.	Course Title	Credit Hours
EXT 507	E-extension	3(2+1)
EXT 508	Research Methods in Behavioral Science	3(2+1)
EXT 509	Participatory Methods for Technology Development and Transfer	3(2+1)
*EXT 513	Agricultural Sociology	4(3+1)
	Total	**9**

* Special paper – in lieu of thesis

Fourth Semester

Course No.	Course Title	Credit Hours
EXT 510	Advances in Agricultural Extension	3(2+1)
*EXT 514	Marketing Extension management	4(3+1)
*EXT 515	Extension Programme Planning & Evaluation	4(3+1)
EXT 516	Master Seminar	1(0+1)
EXT 517	Master Thesis	20
	Total	**24**

* Special paper – in lieu of thesis

M.Sc. (Ag) Programme

EXT 501   Development Perspectives of Extension Education   3(2+1)

Objective

The course is intended to orient the students with the concept of extension education and its importance in Agriculture development and also to expose the students with various rural development programmes aimed at poverty alleviation and to increase employment opportunities and their analysis. Besides, the students will be learning about the new innovations being brought into the Agricultural Extension in India.

Theory

Extension Education–Meaning, objectives, concepts, principles and philosophy, critical analysis of definitions —Extension Education as a Profession — Adult Education and Distance Education. Pioneering Extension efforts and their implications in Indian Agricultural Extension — Analysis of Extension systems of ICAR and SAU — State Departments Extension system and NGOs — Role of Extension in Agricultural University. Poverty Alleviation programmes – SGSY, SGRY, PMGSY, DPAP, DDP, CAPART Employment Generation Programmes — NREGP, women Development Programmes — ICDS, MSY, RMK. Problems in Rural Development. Current Approaches in extension: Decentralized Decision Making. Bottom up Planning, Farming System Approach, Farming Situation Based Extension, Market — Led — Extension, Farm Field School, ATIC, Kisan Call Centres, NAIP.

Practical

Visit to Gram Panchayat to study on-going Rural Development Programmes, Visit to KVK, NGO and Extension centers of State Agricultural University and State Departments. Bottom up planning, Report preparation and presentation

EXT 502   Development Communication And Information Management

3(2+1)

Objective

In this course, students will learn about the concept, meaning and process of communication and various methods and modem media of communication. Besides, the students will also learn the information management and journalistic writing of various information materials and also study their readability,

Theory

Communication process — concept, elements and their characteristics — Models and theories of communication — Communication skills— fidelity of communication, communication competence and empathy, communication effectiveness and credibility, feedback in communication, social networks and Development communication — barriers in communication, Message — Meaning, dimensions of a message, characteristics of a good message, message treatment and effectiveness, distortion of message. Methods of communication—Meaning and functions, classification. Forms of communication Oral and written communication, Non-verbal communication, interpersonal communication, organizational communication. Key communicators — Meaning, characteristics and their role in development Media in communication — Role of mass media in dissemination of farm technology, Effect of media mix for Rural People. Modern communication media —Electronic video, Tele Text, Tele conference, Computer Assisted Instruction, Computer technology and its implications. Agricultural Journalism as a means of mass, communication. Its form and role in rural development, Basics of writing — News stories, feature articles magazine articles farm bulletins and folders. Techniques of collection of materials for news stories and feature articles; Rewriting Art of clear writing, Readability and comprehension

testing procedures; photo journalism, communicating with pictures. Radio and TV Journalism, Techniques of writing scripts for Radio and TV.

Practical

Writing News for Farm News paper/Magazines. Reporting of Various Extension activities like-Field day, Training, result Demonstration and farmer' fair etc. Preparing and delivering effective speech. Handling of communication and recording equipments (like-Computer, P.A. System & Camera). Script writing for Radio, T.V. Conducting students' visit to Radio & T.V. station

EXT 503   Diffusion and Adoption of innovations   3(2+1)

Objective

The students will learn how the agricultural innovations spread among the farmers in the society by getting into the insights of diffusion concept and adoption process, stages of adoption and innovation decision process, adopter categories and their characteristics, opinion leaders and their characteristics, attributes of innovations, and factors influencing adoption. In addition, the students would be learning various concepts related to diffusion and adoption of innovations.

Theory

Diffusion — concept and meaning, elements; traditions of research on diffusion; the generation of innovations; innovation-development process; tracing the innovation-development process, converting research into practice. The adoption process- concept and stages, dynamic nature of stages, covert and overt processes at stages, the innovation-decision process — a critical appraisal of the new formulation. Adopter categories — Innovativeness and adopter categories, adopter categories as ideal types, characteristics of adopter categories; Perceived attributes of Innovation and their rate of adoption, factors influencing rate of adoption. Diffusion effect and concept of over adoption, opinion leadership- measurement and characteristics of opinion leaders, monomorphic and polymorphic opinion leadership, multi-step flow of

innovation; concepts of homophily and heterophily and their influence on flow of innovations; Types of innovation-decisions —Optional, Collective and Authority and contingent innovation decisions; Consequences of Innovation-Decisions — Desirable or Undesirable, direct or indirect, anticipated or unanticipated consequences; Decision making — meaning, theories, process, steps, factors influencing decision — making.

Practical

Case studies in individual and community adoption process, content analysis of adoption studies, Identification of adopter categories on a selected technology, study of attributes of current farm technologies, Identification of opinion leaders. Sources of information at different stages of adoption on a selected technology, study of factors increasing or retarding the rue of adoption, presentation of reports on adoption and diffusion of innovations.

*EXT 511   Perspectives of Distance Education   4 (4+0)

Theory

Distance Education – Introduction Meaning, Concept, Philosophy and its work ethics, characteristics of Distance Education. Evolution and Historical view of Distance Education Theory Methodology, and Epistemology. Dimensions of Distance Education, Scope and difficulties. Open Education – Non-formal Education, Continuing Education, Education by correspondence, Distance education institute. Forms and systems of Distance and Open Education, Modes of Teaching and Learning in Distance Education, Methods of Distance Education, Significance of Distance Education in Teacher Education. Planning Distance Education A Systems Approach Student Learning. Course Planning, The target groups Barriers to learning in Distance Education Planning and Management of Networked Learning. Educational Technology in Distance Education. Application of information and Educational Technologies in Distance Education. Development of Course and Course material. Management of resources, processes. Forms of Instructional material in Distance Education

and Media Development and Production in Distance Education. Video Classroom Strategy in Distance Education. Strategies for maximizing the reach – services to students. Programme Evaluation - performance indicators and Quality Assessment.

Practical

Visit to the University which is implementing the Distance Education Programmes. Detailed Study of their programme in relation to Educational Technology. Methodology, Curriculum Development, Evaluation and Assessment. Exercise on development of curriculum for Distance Education exclusively for farming community.

EXT 504   Human Resource Development   3(2+1)

Objective

To orient the students about key concepts importance, scope & conceptual frame work, growth & development of Human Resource Development, Subsystems of Human Resource Development for extension organization and process of HRD.

Theory

Human Resource Development — Definition, Meaning, Importance, Scope and Need for HRD; Conceptual frame work, inter disciplinary approach, function systems and case studies in HRD; HRD Interventions — Different experiences, Selection, Development & Growth-Selection, Recruitment, Induction Staff Training and Development, career planning: Social and Organizational Culture: Indian environment perspective on cultural process and social structure society in transition; Organizational and Managerial values and ethics, organizational commitment; innovation productivity -job description — analysis and evaluation; Performance Appraisal. Human Resource management: Collective bargaining, Negotiation skills; Human Resource Accounting (HRA): What is HRA? Why IRA? Information Management for HRA and Measurement in HRA; Intra personal processes: Collective

behaviour, learning, and perception ; Stress and coping mechanisms; Inter-Personal Process, Helping Process — communication and Feedback and interpersonal styles; Group & Inter group process: group information and group processes; Organizational communication, Team building Process and functioning, Conflict management, Collaboration and Competition: HRD & Supervisors: Task Analysis; Capacity Building —Counseling and Mentoring; Role of a Professional Manager: Task of Professional Manager — Responsibility of Professional Manager Managerial skills and Soli Stills required for Extension workers; Decision Making. Decision Making models, Management by Objectives; Behavioural Dynamics : Leadership styles — Group dynamics. Training — Meaning. determining training need and development strategies — Training types, models, methods and evaluation; Facilities for training — Trainers training, — techniques for trainees participation; Research studies in training extension personnel; Main issues in HRD: HRD culture and climate — organizing for HRD — emerging trends and Prospective.

Practical

Visit to different training organizations to review ongoing activities & facilities; Analysis of Training methods followed by training .institutions for farmers and extension workers Studies on evaluation of training programmes; study of HRD in organization in terms of performance, organizational development, employees welfare and improving quality of work life and human resource information, Presentation of reports.

EXT 505   Entrepreneurship Development and Management in Extension

3(2+1)

Objective

The first part of the course is intended to provide overall picture of planning and development of enterprises for extending sustainable livelihoods for rural people. The second part of the course is structured to help the students

to gain (knowledge and skills in different concepts and techniques of management in extension organizations.

Theory

Entrepreneurship – Concept, characteristics, Approaches, Theories, Need for enterprises development. Agri —entrepreneurship — Concept, characteristics, Nature and importance for sustainable Livelihoods. Traits of entrepreneurs - Risk taking. Leadership, Decision making, Planning, Organising, Coordinating and Marketing, Types of Intrepreneurs. Stages of establishing enterprise — Identification of sound enterprise. steps to be considered in setting up an enterprise, feasibility report, product selection, risk and market analysis, legal requirements. Project \ management and Appraisal — Market, Technical, Financial, Social Appraisal of Projects. Management — Meaning, concept. nature and importance, Approaches to management, Levels of management, Qualities and skills of a manager. Extension Management — Meaning, Concept, Importance, Principles of management, Classification of Functions of Management. Planning — Concept, Nature, Importance, Types, Making planning effective. Change Management — factors, process and procedures. Decision making—Concept, Types of decisions, Styles and techniques of decision making, Steps in DM Process, Guidelines for making effective decisions. Organizing — leaning of Organization, Concept, Principles, Organizational Structure, Span of Management, Departmentalization, authority and responsibility, Delegation and decentralization, line and staff relations. Coordination — Concept, Need, type techniques of Coordination. Interpersonal relations in the organization. Staffing — Need and importance, \lonpo1\\CF planning, Recruitment, Selection, Placement and Orientation, Training and Development —Performance appraisal leaning, Concept, Methods. Direction – Concept, Principles, Requirements of effective direction, Giving orders, Techniques of direction. Leadership —Concept, Characteristics, Functions. Approaches to leadership, Leadership steles. Organizational Communication —

Concept, Process, Types, Net Works, Barriers to Communication. Managing work motivation — Concept, Motivation and Performance, Approaches to motivation.

Supervision Meaning, Responsibilities, Qualities and functions of supervision. Essentials of effective supervision. Managerial Control - Nature, Process, Types. Techniques of Control, Budgeting, Observation, PERT and CPM, MIS.

Practical

Field visit to Successful enterprises-Study of Characteristics of Successful entrepreneurs Development of Project Proposal Case Studies of Success / Failure enterprises-Exercise on Market Survey-Field visit to Financial institution-Simulated exercise to understand management process. Field visit to extension organizations to understand the functions of management . Group exercise on development of short term and long term plan-Simulated exercise on techniques of decision making-Designing organizational structure -Group activity on leadership development skills.

EXT 506   Visual Communication   3(2+1)

Objective

This course is intended to give a clear perspective about the importance of visuals and graphics in communication. The course starts with the delineating about the characteristics of visuals and graphics followed by its main functions, theories of visual perception and its classification and selection. Further, the course deals with the designing the message graphic formats and devices and presentation of data. It makes the students to understand, prepare and present the scientific data effectively by using low cost visuals. The course also exposes the students to various Video material in multimedia and also enable to design visuals for print, TV and know-how about scanning of visual.

Theory

Role of visuals & graphics in Communication Characteristics of visuals & graphics. Functions of visuals and Graphic theories of visual, perception classification and selection of visuals. Designing message for visuals, graphic formats and devices. Presentation of scientific data. Principles and production of low cost visuals. Photographs - reprographic visuals. PC based visual. Digitized video material in multimedia production Designing graphic for print and TV and video. Protesting and evaluation of visuals.

Practical

Preparation of low cost projected and Non-projected visuals. Designing and layout of charts, posters, flash cards etc. Power point presentations. Generating computer aided presentation graphics. Scanning and evaluation of visuals.

*EXT 512   Gender Sensitization For Development   (1+1)

Theory

Gender concepts, issues and challenges in development. Gender roles, gender balance, status, need and scope. Gender analysis tools and techniques. National policy for empowerment of women since independence; Developmental programmes for women. Gender mainstreaming in agriculture and allied sectors – need and relevance. Gender budgeting – A tool for empowering women. Women empowerment –Dimensions. Women empowerment through SHG approach. Women entrepreneurship and its role in economic development. Public Private Partnership for the economic empowerment of women. Building rural institution for women empowerment. Women human rights. Action plans for gender mainstreaming.

Practical

Visits to rural institutions engaged in women empowerment Visits to entrepreneurial unit of women and making SWOT analysis of the Unit. Visit to Center for women development to study the different activities related to projects and research on gender Visit to gender cell, Office of the

Commissioner and Director of Agriculture of the state to study the mainstreaming of gender concerns and gender budget of the department.

EXT 507   **e- Extension**   **3(2+1)**

Objective

Students will gain knowledge and skills in understanding the concepts of Information and communication technologies and how these ICT tools can be used for Agricultural Extension. Besides, he studies various ICT projects which are successful in delivering the services to the clientele fulfilling the objective of Transfer of technology i.e. Reaching the unreached.

Theory

ICTs- Concept, definition, tools and application in extension education. Reorganizing the extension efforts using ICTs. advantages, limitations and opportunities. ICTs projects, case studies in India and developing world. Different approaches (models) to ICTs. ICT use in field of extension- Expert systems on selected crops and enterprises: Self learning CDs on package of practices, diseases and pest management, Agricultural web sites and portals related crop production and marketing etc. Community Radio, Web, Tele, and Video conferencing. Computer Aided Extension. knowledge management. Information kiosks, Multimedia. Online, Offline Extension. Tools-Mobile technologies, e-learning concepts. ICT Extension approaches-pre-requisites, information and science needs of farming community. Need integration. Human resource information. Intermediaries. Basic e-extension training issues. ICT enabled extension pluralism, Emerging issues in ICT.

Practical

Agri content analysis of ICT Projects. Handling of ICT tools. Designing extension content Online extension service. Project work on ICT enabled extension. Creation of extension blogs. Visit to ICT extension projects.

EXT 508   Research Methods In Behavioural Science   3(2+1)

Objective

      This course is designed with a view to provide knowledge and skills in methods of behavioural sciences research and student will learn the appropriate statistics for data analysis.

Theory

      Research - meaning, importance, characteristics. Behavioural sciences research — Meaning, concept and problems in behavioural sciences research. Types and methods of Research —Fundamental, Applied and Action research, exploratory, Descriptive, Diagnostic, Evaluation, Experimental, Analytical, Historical, Survey and Case Study. Review of literature — Need, Search Procedure, Sources of literature, Planning the review work. Research problem —Selection and Formulation of research problem and guiding principles in the choice of research problem, Factors and criteria in selection of research problem statement of research problem and development of theoretical orientation of the research problem. Objectives Meaning, type; and criteria for judging the objectives. Concept and Construct – Meaning role of concepts in research and Conceptual frame work development in research. Variable — Meaning, type and their role in research. Definition — Meaning, characteristics of workable definitions, types and their role in research. Hypothesis — Meaning, importance and functions of hypothesis in research, Types of hypothesis, linkages, sources, problems in formulation and criteria for judging a workable hypothesis. Measurement—Meaning, postulates and levels of measurement, Use of appropriate statistics at different levels of measurement, criteria for judging the measuring instrument and importance of measurement in research. Validity — Meaning and methods of testing. Reliability- Meaning and methods of testing. Sampling — Universe, Sample and Sampling-Meaning, basis for sampling advantages and limitations, size and factors affecting the size of the sample and sampling errors — Methods of elimination and minimizing,

Maximincon Principle, Sampling — Types of sampling and sampling procedures. Research Designs —Meaning, purpose and criteria for research design, Types, advantages and limitations of each design. Experimental design — Advantages add limitations. Data Collection devices -Interview — Meaning, purpose, types, techniques of interviewing and advantages and limitations. Enquiry fonts and Schedules — Meaning, types of questions used, steps in construction and advantages and limitations in its use. Questionnaires — Meaning, difference between schedule and questionnaire, types of questions to be used, pre — testing of the questionnaires or schedules and advantages and limitations. Check lists — Meaning, steps in construction, advantages and limitations in its use. Rating scales — Meaning, types, limits in construction. advantages and limitations in its use. Observation — Meaning, types, tips in observation, advantages and limitations in its use. Case studies — Meaning, types, steps in conducting, advantages and limitations in its use. Social survey — Meaning, objectives, types and steps in conducting, advantages and limitations. Data processing —Meaning, coding, preparation of master code sheet, analysis and tabulation of data, choosing appropriate statistics for data analysis based on the level of measurement of variables. Report writing Meaning guidelines to be followed in scientific report writing, References in reporting.

Practical

Selection and humiliation of research problem - Formulation of objectives and hypothesis-Selection of variables based on objectives-Developing the conceptual framework of research. Operationally defining the selected variables-Development of data collection devices.-Testing the validity and reliability of the data collection instruments.- Pretesting of the data collection instrument-Techniques of interviewing and collection of data using the data collection instruments-Data processing, coding, tabulation and

analysis. Formulation of secondary tables based on objectives of research. Writing report. Writing of thesis and research articles-Presentation of reports.

EXT 509   Participatory Methods for Technology Development and Transfer   3(2+1)

Objective

This course is intended to orient the students with the key concepts, principles process of different participatory approaches for technology development and transfer and also to expose the students with various participatory tools and techniques like space related, time related, relation oriented methods. Besides the students will be learning the preparation of action plans participatory monitoring and evaluation.

Theory

Participatory extension—importance, key features, principles and process of participatory approaches: Different participatory approaches (RRA, PRA. PLA, AEA, PALM, PAR, PAME, ESRE, FPR) and successful models. Participatory tools and techniques. Space Related Methods : village map (social & resource), mobility services and opportunities Map and transect; Time related methods : time line, trend analysis, seasonal diagram. Daily activity schedule dream map; Relation oriented methods cause and effect diagram (problem tree), impact — diagram, well being ranking method, Venn diagram, matrix ranking, livelihood analysis. Preparation of action plans, concept and action plan preparation; Participatory technology development and dissemination; Participatory planning and management, phases and steps in planning and implementation aspects; Process monitoring, participatory evaluation.

Practical

Simulated exercises on space related methods, time related method and relation oriented methods; Documentation of PTD and dissentination; Preparation of action plan; Participatory monitoring and evaluation of developmental programmes.

*EXT 513   **Agricultural Sociology**   **4(4+0)**

Objective :

The students will learn about agricultural sociology with relations of agricultural sociology and other social sciences. The second part of course is structured to help the students to gain the knowledge about social structure and peasant society.

Theory

Rural Sociology : Meaning, Definitions, Nature, Rural sociology as science, Scope and Importance, Relations of Rural Sociology with sociology, Anthropology, Economics and other Social Sciences.

Social structure, Rural Social System, Society, Social Groups, Peasant Society, Little Community & Folk Culture, Difference and Difficulties of Rural and Urban Society.

Practical

A detailed survey of socio-economic and cultural aspects of the village and submission of the report. Study of C.D. Organizations, training institute and rural development institute. Prepare a community /village development project. Role of cooperative societies in rural development.

EXT 510   **Advances in Agricultural Extension**   **2(1+1)**

Theory

Approaches of Agricultural Extension: A critical analysis of different approaches of agricultural extension. Importance and relevance of indigenous knowledge system, identification and documentation of ITK, Integration-of 1TK system in research formulation, Concept of Agricultural Knowledge and Information System, Training of stakeholders of AKIS. Cyber Extension - Concept of cyber extension, national and international cases of extension Projects using ICT and their impact of Agricultural extension, alternative methods of financing agricultural extension Scope. Limitations and experience and cases. Research -Extension -Farmer - Market linkage: Importance; Scope,

implications etc., Market–Led Extension, Farmer - Led Extension, Concept of Farm Field School, Farm School, Public - Private Partnership: Meaning, Models, Identification of various areas for partnership. Stakeholders analysis in Extension. Main streaming gender in Extension-Issues and Prospects. Implications of WTO-AOA for extension Services. Re-orientation of extension services for Agri-business and marketing activities, GOI-NGO collaboration to improve efficiency of extension. Extension and contemporary issues: Extension and issues-related to rural poverty. Privation of Extension. Intellectual Property Rights (IPRs). Extension reforms in India - Decentralized decision making. Bottom up planning, Farming System and Situation based Extension Delivery system Extension delivery through Commodity Interest Groups. Organization innovations in Extension - ATIC, IVLP, Kisan Call Centers.

Practical

Analysis of ITK systems, cases on integration of ITK and formal research system, Analysis of cases on cyber extension and privatization of extension. Analyses of ATMA and SREP. Practicing bottom up planning. Visit to public private Farmer partnership. Learning from Food and Nutritional Security and bio-diversity Projects and programmes.

*EXT 514   Marketing Extension Management   4(4+0)

Objective :

The student will learn the significance of post harvest management & value addition in present market environment and the challenges and future strategy for market led extension management. Also identifies the information sources and develop strategy for market intelligence and the marketing infrastructure, multilevel marketing and linkages for market led extension. In addition the students would be learning the public private partnerships for market led extension management, the features of contract farming, WTO its implications on agriculture and Understanding the role of IT for market intelligence.

Theory

Agricultural extension at cross roads; Changing scenario of agricultural extension at the national level; Market led extension – emerging perspectives; market led extension – issues and challenges; Dimensions of market led extension.

Agricultural marketing an overview; Development of a marketing plan, pricing concepts and pricing strategy; Consumer behavior; marketing communication and promotional strategies; The marketing research process; Agricultural trade liberalization and its impact; Internaitonal marketing opportunities; Implications of AOA, TRIPS and IPRs agreements on agriculture; Agreement on SPS and TBT – an over view; Commodity features marketing.

Public private linkages in market led extension; Role of SHG in market led extension; Contact farming – a viable approach to meet market challenges; IT enabled approaches for market led extension and communication; Weather service and crop modeling – An effective tool in market led extension.

Practical

Identification and analysis of different marketing sources for agricultural commodities. Development of strategy for an effective market intelligence system; Development of suitable marketing plan to suite rural situation; Visit to APEDA, Rythu Bazaars to study the processes and procedures related to market-led extension.

*EXT- 515   Extension Programme Planning & Evaluation   4(4+0)

Objective

The students will learn how the extension programme planning is essential at different stage of rural development programme and study of different aspects like nature, scope, importance and stage of programme evaluation.

Theory

Programme planning concept, importance, principles, basic elements and steps of programme planning. Programme evaluation : Meaning nature, scope, importance and stage of evaluation in extension. Types of evaluation devices and their construction maintenance of records and reports and their use to improve extension programmes.

Practical

One case study on extension evaluation at block level. Each student will submit a report of the study. Further study of difference government programmes running at block and district level with special reference to agriculture.