RAMA UNIVERSITY, UTTAR PRADESH, KANPUR

Faculty of Agricultural Sciences and Allied Industries

EVALUATION SCHEME

&

SYLLABUS
Agricultural Extension
[Effective from the Session 2024-25]

RAMA UNIVERSITY UTTAR PRADESH, KANPUR

A meeting of the Board of Studies of the Faculty of Agriculture & Allied Sciences, Rama University Uttar Pradesh, Kanpur was held on 15th May 2024-25 at 11 AM. The following members were present:

1. Dr. Aneeta Yadav — Convener
2. Dr. Anuj Tiwari — Member
3. Dr.A.K.Singh — External Member

The quorum of the meeting was complete.
Agenda of the meeting:

1. Assessment Criteria
2. Question Paper Format
3. Syllabus

The meeting resolved unanimously that attached Assessment Criteria, Question Paper Format and Syllabus are justified and approved.

Convener
Signature: .....
Name : Dr. Aneeta Yadav
Date :

Internal Members
Signature:
1.....
Name: Dr. Anuj Tiwari
Date:

External Members

1......
Name: Dr. A.K.Singh

Date:

Faculty of Agricultural Sciences & Allied Industries
Rama University Uttar Pradesh, Kanpur
Course Detail and Evaluation Scheme
(Effective from the Session 2024-25)

M.Sc. (Ag.) AGRICULTURAL EXTENSION FIRST YEAR (SEMESTER-I)

S.N.	Subject Code	Subject Name	Period			Evaluation Scheme			Subject Total	Credit Hours
			L	T	P	CE	MTE	ETE		
Theory subjects										
1	MSAE-108	Extension Landscape	2	0	0	20	20	60	100	2
2	MSAE-109	Applied Behaviour Change	3	0	0	20	20	60	100	3
3	MSA-103	Principles and Practices of Organic Farming	2	0	0	20	20	60	100	2
4	MAS-104	Computer Application	2	0	0	20	20	60	100	2
5	MSAE-105	Process and Methods of Communication	1	0	0	20	20	60	100	1
6	MSAE-106	Fundamental of Rural Sociology	2	0	0	20	20	60	100	2
7	MSAE-111	Managing Extension Organisations	3	0	0	20	20	60	100	3
Practicals / Project										
1	MSAE-151	Applied Behaviour Change	0	0	1	30	20	50	100	1
2	MSA-153	Principles & Practices of Organic Farming	0	0	1	30	20	50	100	1
3	MAS -153	Computer Application	0	0	1	30	20	50	100	1
4	MSAE-155	Process and Methods of Communication	0	0	1	30	20	50	100	1
5	MSAE-156	Fundamental of Rural Sociology	0	0	1	30	20	50	100	1
6	MSAE-158	Managing Extension Organisations	0	0	1	30	20	50	100	1
Total			**15**	0	**6**	**320**	**260**	**720**	**1300**	**21**

Faculty of Agricultural Sciences & Allied Industries
Rama University Uttar Pradesh, Kanpur
Course Detail and Evaluation Scheme
(Effective from the Session 2024-25)

M.Sc. (Ag.) AGRICULTURAL EXTENSION FIRST YEAR (SEMESTER-II)

S.N.	Subject Code	Subject Name	Period			EVALUATION SCHEME			Subject Total	Credit
			L	T	P	CE	MTE	ETE		
Theory subjects										
1	MSAE -201	Psychology of Human Behaviour	1	0	0	20	20	60	100	1
2	MSAE-205	Organisational Behaviour and Development	2	0	0	20	20	60	100	2
3	MSAE-203	Research Methodology in Extension	2	0	0	20	20	60	100	2
4	MSAE-204	Gender Mainstreaming	2	0	0	20	20	60	100	2
Practicals / Project										
1	MSAE -251	Psychology of Human Behaviour	0	0	1	30	20	50	100	1
2	MSAE-254	Organisational Behaviour and Development	0	0	1	30	20	50	100	1
3	MSAE-255	Research Methodology in Extension	0	0	1	30	20	50	100	1
4	MSAE-256	Gender Mainstreaming	0	0	1	30	20	50	100	1
5	PGS-202	Library and Information Services	0	0	1	30	20	50	100	1
6	MSAE-600	Master Research Synopsis	0	0	2	100	0	0	100	2
Total			**7**	**0**	**7**	**330**	**180**	**490**	**1000**	**14**

Faculty of Agricultural Sciences & Allied Industries
Rama University Uttar Pradesh, Kanpur
Course Detail and Evaluation Scheme
(Effective from the Session 2024-25)

M.Sc. (Ag.) AGRICULTURAL EXTENSION SECOND YEAR (SEMESTER-III)

S.N.	Subject Code	Subject Name	Period			EVALUATION SCHEME			Subject Total	Credit
			L	T	P	CE	MTE	ETE		
Theory Subjects										
1	MSAE-305	Capacity Development	2	0	0	20	20	60	100	2
2	MSAE-306	ICTs for Agricultural Extension and Advisory Services	2	0	0	20	20	60	100	2
3	MSAE -303	Visual and Graphic Communication	1	0	0	20	20	60	100	1
4	MSAE-307	Evaluation and Impact Assessment	2	0	0	20	20	60	100	2
Practicals / Project										
1	MSAE-357	Capacity Development	0	0	1	30	20	50	100	1
2	MSAE-358	ICTs for Agricultural Extension and Advisory Services	0	0	1	30	20	50	100	1
3	MSAE -353	Visual and Graphic Communication	0	0	1	30	20	50	100	1
4	MSAE-359	Evaluation and Impact Assessment	0	0	1	30	20	50	100	1
5	MSAE-355	Process of Photography	0	0	1	30	20	50	100	1
6	MSAE-356	Rural Community Work Experience (RCWE)	0	0	1	30	20	50	100	1
Total			**7**	**0**	**6**	**260**	**200**	**540**	**1000**	**13**

Faculty of Agricultural Sciences & Allied Industries
Rama University Uttar Pradesh, Kanpur
Course Detail and Evaluation Scheme
(Effective from the Session 2024-25)

M.Sc. (Ag.) AGRICULTURAL EXTENSION FIRST YEAR (SEMESTER-IV)

S.N.	Subject Code	Subject Name	Period			EVALUATION SCHEME			Subject Total	Credit
			L	T	P	CE	MTE	ETE		
1	MSAE-601	Master's Research (Research Work & Thesis)	0	0	20	Satisfactory/Unsatisfactory			-	20
Total			0	**0**	**20**	Satisfactory/Unsatisfactory			-	**20**

L-Lecture, T-Tutorial, P- Practical, CE- Continuous Evaluation, MTE-Mid Term Examination, ETE-End Term Examination, * indicating minor courses, ** indicating supporting courses

Evaluation Scheme:
L-Lecture, P- Practical, MTE-Mid Term Examination, ETE-End Term Examination
1. Course with practical components
   - For MID Term Examination is such as: 30 Marks
   - Practical Examination (Assignments/Quiz / Seminar/Term paper /Project) :10 Marks
   - External Viva : 10Marks
   - ETE - End Term Examination: 50 Marks
2. Course without practical components
   - For MID Term Examination is such as: 40 Marks
   - (Assignments/Quiz / Seminar/Term paper /Project) :10 Marks
   - ETE - End Term Examination: 50 Marks

Course Learning Outcomes (CLO)
- Identify the area of research in field of agricultural Extension.
- Develop a research problem and plan for further investigation.
- Propose research topic and objective of research work planned.
- Quote the available literature during development of research plan.
- Collect suitable review of literatures related to the planned work

Convener
Signature: .....
Name : Dr. Aneeta Yadav
Date :

Internal Members
Signature: 1..... 2.....
Name: Dr. Anuj Tiwari Dr. KartikayBisen
Date:

External Members
Signature: 1.....
Name: Dr. A.K.Singh
Date:

Semester-I

Theory MSAE-108: Extension Landscape (2+0)

L	T	P	CR
2			2

Course objective:-

1. Discuss the importance Education Extension .

2. Analysis of definitions, principles and philosophy of Extension Education..

3. Historical and emerging perspective of Agriculture Extension in India.

Detail Contents
Unit : 1 – 20%
Unit : 2 - 20%
Unit : 3 - 40%
Unit : 4 - 10%

BLOCK 1 GLOBALLY,WHAT IS NEW IN EXTENSION

Unit I Challenges before Extension and Advisory Services (EAS) Extension and Advisory Services (EAS)- Meaning (embracing pluralism and new functions) New Challenges before farmers and extension professionals: **Natural Resource Management**-Supporting farmers to manage the declining/deteriorating water and soil for farming **Gender Mainstreaming**- How extension can enhance access to new knowledge among women farmers; **Nutrition- Role** of extension in supporting communities with growing nutritious crop and eating healthy food **Linking farmers to markets**-Value chain extension including organizing farmers, strengthen value chain and supporting farmers to respond to new standards and regulations in agri-food systems; **Adaptation to climate- changes**-How extension can contribute to up-scaling Climate Smart Agriculture;**Supporting family farms**- strengthening the capacities of family farms **Migration**-Advisingfarmers to better respond to opportunities that emerge from increasing mobility and alsosupporting migrants in enhancing their knowledge and skills; **Attracting and Retaining**-Youth in Agriculture including promotion of agripreneurship and agri-tourism **Urban and peri-urban farming**- How to support and address issues associated with urban and peri-urban agriculture; **Farmer distress, suicides**- Supporting
farmers in tackling farm distress

Unit 2 New Functions and New Capacities
Beyond transfer of technology: Performing new functions to deal with new challenges;**Organising producers into groups**-dealing with problems that need collective decision making such as **Natural Resource Management (NRM) andaccess to markets Mediating conflicts and building consensus**to strengthen collective decisionmaking; **Facilitatingaccess to credit, inputs and services**-includingdevelopment of service providers**Influencing policies**to promote new knowledge at a scale ,**Networking andpartnership** development including convening multi-stakeholder platforms/innovation platforms **New Capacities needed by extension and advisory services at different levels** –at the individual (lower, middle management and senior management levels), organizational andenabling environment levels **Core competencies**at the individual level; Variedmechanisms for capacity development (beyond training)

Unit 3 Pluralism in EAS
Pluralism in Extension Delivery: Role of **private sector**(input firms, agri- 2 business companies, consultant firms and individual consultants)- Trends in the development ofprivate extension and advisory services in India and other countries Challenges faced by private extension providers Role of **Non-Governmental Organizations**(National/international)/ Civil Society Organizations (CSOs) in providing extension-Experiences from India and other countries**Producer Organizations**-Role in strengthening demand and supply of extension services; their strength and weaknesses-experiences from different sectors Role of **Media and ICT advisory**service providers; global experiences with use of media and ICTs in advisory services provision

BLOCK 2 INSIGHTS FROM INNOVATIONSTUDIES AND NEW EXTENSION APPROACHES

Unit 1 From the Linear Paradigm to Systems Paradigm Diffusion of Innovations paradigm- strengths and limitations; **multiple sources ofinnovation**-farmer innovation, institutional innovation; **farmer participation in technologygeneration and promotion**; strength and limitations **Agricultural Knowledge and Information Systems (AKIS)**; strength and limitations; **Agricultural Innovation Systems (AIS); Redefining Innovation**- Role of Extension and Advisory Services in AIS-From information delivery to intermediation across multiple nodes; Role of brokering; Innovation Platforms, Innovation Management; Strength and weaknesses of AIS.**Rethinking Communication in the Innovation Process**– Network building,support social learning, dealing with dynamics of power and conflict;

Unit 2 Evolving Extension Approaches Evolution and features of extension approaches: Transfer of technology approach; educational approach, farmer participatory extension approach,demand-driven extension, Market led extension (value chain extension), extension for climate smart agriculture, gender sensitive extension, extension for entrepreneurship **Extension systems in different regions**: Asia-Pacific, Europe, Latin America,Australia,North America **Networking for Strengthening EAS**: GFRAS (Global Forum for RuralAdvisory Services) and its regional networks

BLOCK 3 EXTENSION REFORMS AND POLICY CHALLENGES

Unit 1 Changes in Governance, Funding and Delivery Reduction in public funding: public withdrawal from extension provision (partial/full);Examples/Cases **Privatization: Public funding and private delivery**; cost sharing and cost recovery; Examples/Cases **Decentralization of extension services**; Examples/Cases;Lessons from extension reforms in different countries; Extension and Sustainable Development Goals (SDGs)

Unit 2 Challenges in Managing Pluralistic Extension Systems

Pluralism: Managing pluralism and Co-ordination of pluralistic extension provision; Public private partnerships in extension (including the role of local governments / panchayats and producer organisations); Examples, challenges in co-ordination; Achieving convergence in extension planning and delivery **Financing Extension**: Mobilizing resources for extension: public investments, donor support (grants/loans) **Monitoring and Evaluation of Extension**:Generating appropriate data for Assessment and Evaluation of pluralistic extension; **Strengthening extension policy interface**; generating evidence on impact of extension and policy relevant communication.

Course Learning Outcomes (CLO)

1. Assessment methods may include written and practical examinations, homework assignments and discussion activities.
2. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.
3. Skill is assessed in each laboratory exercise utilizing an evaluation rubric that includes cognitive, psychomotor and affective learning domains.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	3	2	2	3	2	3	2	1	-	3
CO_2	2	3	-	3	1	3	1	-	1	3
CO_3	3	2	3	3	3	3	3	1	1	3
Average	2.7	2.7	1.7	3	2	3	2	0.7	0.7	3

RESOURCES

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Barber J, Mangnus E and Bitzer V. 2016. Harnessing ICT for agricultural extension. KITWorking Paper 2016:4.
https://213ou636sh0ptphd141fqei1-wpengine.netdna-ssl.com/sed/wpcontent/uploads/sites/2/2016/11/KIT_WP2016-4_Harnessing-ICT-for-agriculturalextension.Pdf

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Services. MEAS Discussion Paper. http://meas.illinois.edu/wpcontent/uploads/2015/04/Bingen-Simpson-2014-FarmerOrganizations-MEAS-Discussion-Paper.pdf

Bitzer V, Wennink B and de Steenhuijsen PB. 2016. The governance of agriculturalextension systems.KIT Working Paper16016:1.http://213ou636sh0ptphd141fqei1.wpengine.netdnacdn.
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http://www.fao.org/docrep/012/i1444e/i1444e.pdf

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Innovation Overview Module 1 Investment in Extension and Advisory Services as Part of Agricultural Innovation Systems. In Agricultural Innovation Systems: An Investment Sourcebook. Agricultural and Rural Development. World Bank. © World Bank.
http://siteresources.worldbank.org/INTARD/Resources/335807-1330620492317/9780821386842ch3.pdf

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WEBSITES

AESA-Agricultural Extension in South Asia http://www.aesanetwork.org/
FAO -Food and Agricultural Organisation (Research and Extension)
http://www.fao.org/research-and-extension/en/
GFRAS- Global Forum for Rural Advisory Services http://www.g-fras.org/en/
INGENEAS -Integrating Gender and Nutrition within Agricultural Extension Services
https://ingenaes.illinois.edu/
IFPRI- International Food Policy Research Institute (Extension)
http://www.ifpri.org/topic/agricultural-extension
KIT- Royal Tropical Institute (KIT)-Sustainable Economic Development
https://www.kit.nl/sed/ WUR-Wageningen University and Research Research (Knowledge, Technology and Innovation Group (KTI)) https://www.wur.nl/en/Research-Results/Chair-groups/Social-Sciences/KnowledgeTechnology-and-Innovation-Group.htm

Signature:-

1. .....
2. .....
3. .....
4. .....

Course Code: MSAE-109

Title: Applied Behaviour Change
Credits: 3(2+1)

L	T	P	CR
2		1	3

Course objective:-

1. Discuss the importance of Research .
2. Selection and identification of researchable problem. Designs of social research: meaning, types, purpose, and principles.
3. Action research. Agro-eco-system research. Participatory research•. Case study

Detail Contents
Unit : 1 – 20%
Unit : 2 - 20%
Unit : 3 - 20%
Unit : 4 - 20%
Unit : 5 - 20%

BLOCK 1: FOUNDATIONS OF BEHAVIOUR CHANGE
Unit 1: Foundations of Human BehaviourHuman behaviour – Meaning, importance and factors influencing human behaviour;Biological bases-of human behaviour – Nervous system, brain, endocrine system andgenes; Individual variations – intelligence, ability and creativity– foundations and theories,personality and temperament - foundations, approaches, theories of personality, measuringpersonality (traits, locus of control, self-efficacy; Personal, social and moral development– meaning, concepts – self-concept, self-esteem and self-worth and theories. Motivation –foundations, approaches, theories, managing human needs and motivations; perceiving others – impression, attitude, opinions; Emotions - foundations, types and functions, measuring emotional intelligence

BLOCK 2: COGNITIVE PROCESSES AND LEARNING
Unit 1: Cognitive Processes affecting Human Behaviour Sensory organs and their role cognition; Cognitive processes – Attention, perception, remembering and forgetting, knowledge and expertise – foundations and theories;Principles and processes of perception; Consciousness – meaning, types, sleep and dreams; Learning and Memory – Memory - meaning, types and mechanisms of storage and retrieval of memories in the Human brain; Complex cognitive processes - Concept formation, Thinking, Problem solving and transfer – foundations, theories and approaches

Unit 2: Information Processing
Information processing – meaning, principles; Models of information processing – Waugh and Norman model of primary and secondary memory; Atkinson and Shiffrin's stage model of memory; other models including blooms taxonomy and Sternberg's Information Processing Approach; Attention and perception – meaning, types, theories and models; Consciousness.
Unit 3: Learning

Learning – foundations, approaches and theories; Cognitive approaches of learning – meaning, principles theories and models; Memory – foundations, types ; Behavioural approaches of learning – foundations and theories - classical conditioning, operant conditioning, applied behaviour analysis; Social cognitive and constructivist approaches to learning – foundations and theories – social cognitive theory, Selfregulated learning; learning styles – meaning, types and applications in learning

Unit 4: Judgement, Choice and Decision-making
Human judgement – meaning, nature, randomness of situations, theories and models; Choice – meaning, criteria for evaluating options; theories and models of human choice; Choice architecture; Decision-making – Meaning, problem analysis; steps and techniques of decision-making under different contexts

BLOCK 3: HUMAN BEHAVIOUR IN THE SOCIETY

Unit 1: Attitudes and Influence
Attitudes - meaning, assumptions, types, theories and models of attitude formation; methods of changing attitudes, Relating to others - liking, attraction, helping behaviour, prejudice, discrimination and aggression; Liking / affect – meaning, types and theories; Attraction – meaning, types and theories; Persuasion – meaning, theories and techniques; Social influence and groups – conformity, compliance and obedience

Unit 2: Social Judgement, Social Identity and Inter-Group Relations Social judgement – meaning, frame of reference, stereotyping; The judgement of attitude models; Attribution – meaning, theories; Rational decision making; Social identify – meaning, types; assessment; Groups – meaning, types, group processes; sustainability of groups; Inter group processes and theories social learning

PRACTICALS
1. Understanding perception – Attentional Blink and Repetition Blindness exercise
2. Understanding attention - Testing selective attention capacity and skills and processing speed ability through Stroop test
3. Hands-on experience in the techniques for assessing creative thinking – divergent and convergent thinking
4. Lab exercise in applying Maslow's need hierarchy to assess motivation
5. Learning - Classical conditioning and operant conditioning
6. Assessing learning styles-through Barsch and Kolb inventories
7. Practical experience in building self-esteem
8. Assessment of emotional intelligence
9. Exercises in problem solving
10. Exercises in visual perception
11. Measuring self-concept using psychometric tools
12. Experiment on factors influencing information processing
13. Assessment of attitudes
14. Hands on experience in methods of persuasion
15. Field experience in assessing social judgement
16. Simulation exercise to understand decision-making under different situations
17. Exercise in rational decision-making.

TEACHING METHODS/ACTIVITIES
- Lecture cum discussion
- Class exercises
- Group Presentation

MSAE- 111 Managing Extension Organizations (3+1)

Objective

By the end of the course students will be able to

□ Understand management related terminologies and concepts and demonstrate their knowledge and skills on various management functions, as applicable to extension organizations.

□ Analyse organizational structures, functions and inter linkages in public and private sector extension management.

□ Critically analyse and apply decision making approaches, leadership approaches and motivation approaches to manage extension organizations.

□ Make sound decisions, lead, motivate, coordinate and control extension management activities.

Block 1:

Basics of Management

Unit 1:

Management- An Over view Management and Extension management – Meaning, concept, nature and importance; and theories of management. Management, administration and supervision -meaning, definition and scope; Approaches to management, Principles, functions and levels of management; Qualities and skills of a manager; Interpersonal relations in the organization;Reporting and budgeting.

Block 2:

Management in different types of Extension Organizations

Unit 1:

Extension Management in public,private sector and other sectors

Extension management (POSDCORB) in public sector, Department of Agriculture, Agricultural Technology Management Agency (ATMA), Krishi Vigyan Kendra (KVK), SAUs, ICAR Institutes, Private sector, Cooperatives, NGOs, FPOs etc. Organisational Structure, Relations between different units- Challenges in management

Unit 2:

Concepts in Management

Decision making – Concept, Types of decisions, Styles and techniques of decision making, Steps in DM Process, Guidelines for making effective decisions; Human Resource Management: Manpower planning, Recruitment, Selection, Placement and Orientation, Training and Development; Dealing with fund and staff shortages in different extension organizations (KVK, ATMA etc.); Leadership – Concept, Characteristics, Functions, Approaches to leadership, Leadership styles; Authority and responsibility, Delegation and decentralization, line and staff relations;Challenges of co-ordination in extension organizations; Managing interdepartmental coordination and convergence between KVK, ATMA and line departments; Coordinating pluralism in extension services; Challenges in managing public-private partnerships (PPPs) at different levels in agricultural development in general and extension in particular;

Performance appraisal – Meaning, Concept, Methods.

Block 3:Motivation and Organizational Communication

Unit 1:Motivation and Communication

Managing work motivation – Concept, Motivation and Performance,

Approaches to motivation,Team building; Mentoring, Team work and team-building strategies; Organizational Communication – Concept, Process, Types, Networks, Barriers to Communication;Time management, Modernization of information handling

Unit 2:

Supervision and Control

Supervision – Meaning,. Responsibilities, Qualities and functions of supervision, Essentials of effective supervision;Managerial Control – Nature, Process, Types, Techniques of Control,
Observation, PERT and CPM,Management Information Systems (MIS): Concept, tools and techniques, MIS in extension organizations.

Practical

- Simulated exercises on techniques of decision making
- Study the structure and function of agro-enterprises, Designing organizational structure/ organograms.
- Group activity on leadership development skills
- Simulated exercise to understand management processes
- Field visit to extension organizations (ATARI, KVKs, NGOs), FPOs, dairy cooperatives to understand the functions of management
- Practical exercises on PERT & CPM
- Group exercise on development of short term and long-term plans for agro-enterprises
- Developing model agriculture-based projects including feasibility study, financial planning and cost-benefit analysis.

Course Learning Outcomes (CLO)

1. Assessment methods may include written and practical examinations, homework assignments and discussion activities.
2. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.
3. Skill is assessed in each laboratory exercise utilizing an evaluation rubric that includes cognitive, psychomotor and affective learning domains.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	3	2	2	2	2	3	3	1	-	3
CO_2	2	3	-	3	1	3	3	-	1	3
CO_3	3	2	3	1	3	3	3	1	1	3
Average	2.7	2.7	1.7	2	2	3	3	0.7	0.7	3

Signature

1. .....
2. .....
3. .....
4. .....

MSAE- 105: Process and Methods of Communication

L	T	P	CR
2		1	3

Course objective:-

1. Discuss the Basics of communication: meaning, importance of Communication.
2. Role of communicator in Extension Education; Communication behavior, Communication skills, Friendlily of communication
3. Theories and models of communication; interpersonal, Interpersonal and mass of communication, need concept and scope in India.

Detail Contents

Unit : 1 – 20%
Unit : 2 - 20%
Unit : 3 - 20%
Unit : 4 - 20%
Unit : 5 - 20%

Unit 1

Basics of communication: meaning. Nature, processes, purpose and levels of communication; Language in communication; of meaning non-verba1 communication; Role of communicator in Extension Education;

Unit 2

Communication behavior, Communication skills, Friendlily of communication: communication competence and empathy: 'communication effectiveness and credibility, Improving oral and written communication,

Unit 3

Message design dimension of message, channels of communication meaning dimension, classification behaviour; Social Network – homophily, heterophony, traditional and mass media of communication;

Unit 4

Theories and models of communication; interpersonal, Interpersonal and mass of communication, need concept and scope in India.

Unit 5

Third world counties, communication technology and its implications Methodological issues in communicationresearch.

Practical

Exercises on presentation skills, listening skills, writing skills, exercises on distortion of communication message; scientific study of communication network in villages through appropriate tools, Exercises on development of appropriate communication plan for extension projects.

Course Learning Outcomes (CLO)

1. Assessment methods may include written and practical examinations, homework assignments and discussion activities.

2. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.

3. Skill is assessed in each laboratory exercise utilizing an evaluation rubric that includes cognitive, psychomotor and affective learning domains.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	3	2	2	2	2	3	3	1	-	3
CO_2	2	3	-	3	1	3	3	-	1	3
CO_3	3	2	3	1	3	3	3	1	1	3
Average	2.7	2.7	1.7	2	2	3	3	0.7	0.7	3

Text books:-

Process and methods of communication by A. S. Sandhu.

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MSAE- 106: Fundamental of Rural Sociology

L	T	P	CR
3	0	1	3

Course objective:-

1. Discuss about Rural people life and their behavior
2. Discuss about Socialization: concept, role in personality development, Social stratification: concept, structure, role.
3. Leadership: concept, types, styles, theories and principle, and its implication, for development; Religious belief system and its significance for development.

Detail Contents

1. **Unit : 1 – 20%**
2. **Unit : 2 - 20%**
3. **Unit : 3 - 20%**
4. **Unit : 4 - 20%**
5. **Unit : 5 - 20%**

Unit 1

Rural Sociology : Definition, scope, importance and relationship with extension education: Basic sociological concepts society, community, rural social institutions, association, social change, cultural change, technological change, social values, norms, folkways, more customs and traditions.

Unit 2

Culture: concept, types, structure, patterns, problems, cultural relativism and cultural lag, cultural integration and its role in development; Socialization: concept, role in personality development

Unit 3

Social stratification: concept, structure, role; Groups: concept, types and dynamic; Leadership: concept, types, styles, theories and principle, and its implication, for development

Unit 4

Religious belief system and its significance for development; Social structure, social organizations and social system concept, differences, types, their role in development.

Unit 5

Social sanctions and deviance; Social Process: concept, types- competition, conflict, cooperation, assimilation and accommodation; Social change due to developmental programs and gender roles.

Practical :-

Rural sociology and extension cases on social, cultural and technological changes, studies on delief system, Exploring social process, Exploring group dynamics and leadership pattern in villages. Leadership styles in village situation, Rural social institutions (Panchayats, Cooperatives). Social sanctions, values and deviance — cases Assignments and term papers.

Course Learning Outcomes (CLO)

1. Assessment methods may include written and practical examinations, homework assignments and discussion activities.
2. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.
3. Skill is assessed in each laboratory exercise utilizing an evaluation rubric that includes cognitive, psychomotor and affective learning domains.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	2	3	2	2	2	3	2	1	-	2
CO_2	2	3	-	3	1	2	3	-	1	2
CO_3	3	3	3	1	3	3	3	1	1	2
Average	2.3	3	1.7	2	2	2.7	2.7	0.7	0.7	3

Text books:-

Introductory of Rural Sociology by J. B. Chitambar

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MSAE -201: Psychology of Human Behavior

L	T	P	CR
1		1	2

Course objective:-

1. Discuss the Psychology of human behaviour
2. To know the human attitude and motivation
3. To know factor contributing the attitude.

Detail Contents

Unit : 1 – 25%

Unit : 2 - 25%

Unit : 3 - 25%

Unit : 4 - 25%

Unit 1

Psychology:-: Meaning, scope and importance in extension education; psychology of human behavior; perception nature, laws and selectivity in perception, sensory factors in perception, importance of perception in extension work;

Unit 2

attitude: meaning and characteristics. Formation of stereotypes and prejudices, factors in attitude change; motivation: nature, characteristics, theories and of types of motives of techniques of motivation farm people;

Unit 3

Emotion: nature, types of emotional response, theories, and role of emotion in regulation human behaviour; learning definition, principles, indicators,

Unit 4

Theories of learning and experimental learning; defence mechanism; types and importance; personality and individual difference, personality as a set of traits and personality as the self, Roger's self theory, Maslow's self actualization theory;

Course Learning Outcomes (CLO)

1.Assessment methods may include written and practical examinations, homework assignments and discussion activities.

2.Explain thepsychology of human behavior..

3. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	3	2	2	3	2	3	2	1	-	3
CO_2	2	3	-	3	1	3	1	-	1	3
CO_3	3	2	3	3	3	3	3	1	1	3
Average	2.7	2.7	1.7	3	2	3	2	0.7	0.7	3

Text books:-

Psychology of Human Behaviour**, by A. T. Mosher, Oxford & IBH., New Delhi.**

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Course Code: MSAE- 109
Title: Applied Behaviour Change

L	T	P	CR
3	1	4	

Course objective:-

1. Discuss the Process of programme planning

2. To know the steps in execution the plan.

3. To know the PRA and RRA system.

Detail Contents

Unit : 1 – 25%

Unit : 2 - 25%

Unit : 3 - 25%

Unit : 4 - 25%

BLOCK 1: FOUNDATIONS OF BEHAVIOUR CHANGE

Unit 1: Foundations of Human Behaviour
Human behaviour – Meaning, importance and factors influencing human behaviour; Biological bases of human behaviour – Nervous system, brain, endocrine system and genes; Individual variations – intelligence, ability and creativity– foundations and theories, personality and temperament - foundations, approaches, theories of personality, measuring personality (traits, locus of control, self-efficacy; Personal, social and moral development – meaning, concepts – self-concept, self-esteem and self-worth and theories. Motivation – foundations, approaches, theories, managing human needs and motivations; perceiving others – impression, attitude, opinions; Emotions - foundations, types and functions, measuring emotional intelligence.

BLOCK 2: COGNITIVE PROCESSES AND LEARNING
Unit 1: Cognitive Processes affecting Human Behaviour
Sensory organs and their role cognition; Cognitive processes – Attention, perception, remembering and forgetting, knowledge and expertise – foundations and theories; Principles and processes of perception; Consciousness – meaning, types, sleep and dreams; Learning and Memory – Memory - meaning, types and mechanisms of storage and retrieval of memories in the Human brain; Complex cognitive processes - Concept formation, Thinking, Problem solving and transfer – foundations, theories and approaches
Unit 2: Information Processing
Information processing – meaning, principles; Models of information processing – Waugh and Norman model of primary and secondary memory; Atkinson and Shiffrin's stage model of memory; other models including blooms taxonomy and Sternberg's Information Processing Approach; Attention and perception – meaning, types, theories and models; Consciousness

Unit 3: Learning
Learning – foundations, approaches and theories; Cognitive approaches of learning – meaning, principles theories and models; Memory – foundations, types ; Behavioural approaches of learning – foundations and theories - classical conditioning, operant conditioning, applied behaviour analysis; Social cognitive and constructivist approaches to learning – foundations and theories – social cognitive theory, Selfregulated learning; learning styles – meaning, types and applications in learning
Unit 4: Judgement, Choice and Decision-making
Human judgement – meaning, nature, randomness of situations, theories and models; Choice – meaning, criteria for evaluating options; theories and models of human choice; Choice architecture; Decision-making – Meaning, problem analysis; steps and techniques of decision-making under different contexts

BLOCK 3: HUMAN BEHAVIOUR IN THE SOCIETY
Unit 1: Attitudes and Influence
Attitudes - meaning, assumptions, types, theories and models of attitude formation; methods of changing attitudes, Relating to others - liking, attraction, helping behaviour, prejudice, discrimination and aggression; Liking / affect – meaning, types and theories; Attraction – meaning, types and theories; Persuasion – meaning, theories and techniques; Social influence and groups – conformity, compliance and obedience
Unit 2: Social Judgement, Social Identity and Inter-Group Relations
Social judgement – meaning, frame of reference, stereotyping; The judgement of attitude models; Attribution – meaning, theories; Rational decision making; Social identify – meaning, types; assessment; Groups – meaning, types, group processes; sustainability of groups; Inter group processes and theories social learning

PRACTICALS
1. Understanding perception – Attentional Blink and Repetition Blindness exercise
2. Understanding attention - Testing selective attention capacity and skills and processing speed ability through Stroop test
3. Hands-on experience in the techniques for assessing creative thinking – divergent and convergent thinking
4. Lab exercise in applying Maslow's need hierarchy to assess motivation
5. Learning - Classical conditioning and operant conditioning
6. Assessing learning styles through Barsch and Kolb inventories
7. Practical experience in building self-esteem
8. Assessment of emotional intelligence
9. Exercises in problem solving
10. Exercises in visual perception
11. Measuring self-concept using psychometric tools
12. Experiment on factors influencing information processing
13. Assessment of attitudes
14. Hands on experience in methods of persuasion
15. Field experience in assessing social judgement
16. Simulation exercise to understand decision-making under different situations
17. Exercise in rational decision-making.

TEACHING METHODS/ACTIVITIES
- Lecture cum discussion
- Class exercises
- Group Presentation

Course Learning Outcomes (CLO)

1.Assessment methods may include written and practical examinations, homework assignments and discussion activities.

2.Explain the steps in programme planning.

3. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	2	3	2	2	2	3	2	1	-	2
CO_2	2	3	-	3	1	2	3	-	1	2
CO_3	3	3	3	1	3	3	3	1	1	2
Average	2.3	3	1.7	2	2	2.7	2.7	0.7	0.7	3

Suggested Readings

Eiser J, Richard. 2011. Social Psychology: Attitudes, Cognition and Social Behaviour. Cambridge: Cambridge University Press.(First Edition, 1986))

Eysenck MW and Keane M T. 2010.Cognitive psychology: A student's handbook. Sixth Edition, Hove: Psychology Press.

Feldman RS. 2008. Essentials of understanding psychology (7th ed.). Boston: McGraw-Hill.

Gilovich T, Keltner D, and Nisbett RE. 2011. Social psychology. New York: W.W. Norton & Co Moreno R. 2010.Educational Psychology. Hoboken, NJ: John Wiley & Sons Inc.

Nevid JS. 2012. Essentials of psychology: Concepts and applications Belmont, CA: Wadsworth, Cengage Learning.

Rachlin H. 1989. Judgment, decision, and choice: A cognitive/behavioral synthesis. New York: W.H. Freeman.

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Course Title : Research Methodology in Extension

Course Code : MSAE-203	**L**	**T**	**P**	**CR**
	2	**1**		**3**

Learning outcome

– Understand the concepts, paradigms, approaches and strategies of behavioural research
– Enable to choose research design, methods and tools suitable for the research problem
– Design research instruments skilfully and conduct research in an objective and unbiased way
– Analyse the data through appropriate analytical methods and tools and derive meaningful interpretations

Growth of any discipline is directly proportional to the creation of knowledge in that discipline. Extension research is the backbone of extension discipline. Extension research is a unique social science inquiry where research ideas are gathered from the field problems and put through a systematic cycle of objective investigations that result in significant solutions. Apart from developing theories and models that advance scientific knowledge, extension research should also provide new insights for improving extension policy and practice. As extension is a field oriented discipline seeking to improve the welfare of its stakeholders, the extension professionals require
critical competencies in conducting empirical research for developing sound extension models, methods and tools.

V. Aim of the course

This course aimed to create a workforce which has sound fundamental knowledge Social Sciences:Agricultural Extension Education and critical competencies in planning, conducting and applying behavioural research for developing quality extension models, methods and tools.
The course is organized as follows:

Blocks Units A. Introduction to behavioural research

1. Nature of Behavioural Research
2. The Behavioural Research Process
2. Steps in behavioural research process 1. Formulating a Research Problem
2. Reviewing the Literature
3. Identifying Variables and Hypotheses
4.Formulating Research Designs, Methods and Tools
5. Selecting Sample
6. Collecting Data
7. Analysing and Interpreting the Data
8. Reporting and Evaluating Research

VII. Practicals

• Selecting a research problem and writing problem statement
• Narrowing down research problem to purpose, research questions and objectives
• Choosing, evaluating and reviewing research literature
• Selection of variables through construct conceptualization and defining variables
• Choosing research design based on research problem
• Choosing right sampling method and estimating sample size
• Developing research methods and tools – questionnaires, interview schedule, checklists and focus group guides
• Writing a research proposal
• Field data collection using research methods and tools
• Testing reliability and validity of research instruments

• Hands on experience in using SPSS for coding, data exploration, editing, analysis and interpretation Formulation of secondary tables based on objectives of research
• Writing report, writing of thesis and research articles
• Presentation of reports

VIII. Teaching methods/activities

– Lecture cum discussion
– Class exercises
– Assignment (Reading/Writing)
– Student's Book/Publication Review
– Student presentation
– Group Work
– Research Report

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MSAE-204 : Gender Mainstreaming (2+1)

L	P	CR
2	1	3

Objective

By the end of the course students will be able to

□ Understand gender related terminologies and concepts and appreciate the importance of gender in agriculture.

□ Analyse gender issues, conduct gender analysis, identify gender needs and apply strategies to address gender and women empowerment.

□ Appreciate gender in agricultural research and extension and integrate it in the process of agro-technology development and dissemination.

□ Understand importance of gender mainstreaming in agriculture and apply appropriate extension strategies to address gender issues such as gender in agricultural value chains, gender and climate change adaptation etc.

□ Evaluate women empowerment approaches, global best practices, policies and frameworks for women empowerment and gender mainstreaming.

□ Understand entrepreneurship development for women in agriculture and agro processing sector.

Theory

UNIT I

Historical Perspective of Gender

Historical perspective of gender: Feminism and emergence of gender as a concept,Scope of gender studies in agriculture and rural development 3

UNIT II

Agrarian Importance of Gender Agrarian Importance of Gender: Understanding the importance of gender in national and global agriculture Key gender issues and challenges in agriculture Gender and value chain Global actions to address gender-needs and strategies to address gender and women empowerment. Gender Related Concepts, Analysis, Gender and Technology

UNIT I

Gender RelatedConcepts and Divides

Understanding of the concepts of gender, gender equality and equity, gender balance, gender blindness, gender relations, gender neutrality, gender bias and discrimination, gender rights, gender roles and responsibilities. Gender budgeting, Gender divides and their implications such as gender digital divide, gender access to resources and inputs divide, gender mobility divide, gender wage divide, Gender needs: practical and strategic.

UNIT II

Gender Analysis Gender analysis: Importance, usage, prerequisites, techniques of gender analysis Tools for gender analysis.

UNIT III

Gender and Technology

How gender and technology impact each other, Gender neutral technology, Gender sensitive technology, Gender supportive assistance in technology adoption-Gender in agricultural research and extension.GenderMainstreaming andWomenEmpowerment

UNIT I

GenderMainstreamingImportance of gender mainstreaming in agriculture,Extension strategies to address gender issues such as gender and health,nutrition, gender in agricultural value chains, gender and climate changeadaptation, gender and globalization& liberalizationStrategies/Tools for mainstreaming gender concerns into the nationalprogrammes and policies

UNIT II

Women Empowerment

Importance of women empowerment, Current national women empowerment and gender indices.Women empowerment approaches (technological, organizational, political, financial, social, legal and psychological),Case studies based on experiences and learning from various development and rural development programmes

UNIT III

Global Best Practices, Policies and Frameworks Global best practices, women empowerment and gender mainstreaming models and frameworks for addressing gender concerns in agriculture,

approaches of various organizations.Gender mainstreaming and special women focused programmes in agriculture and rural development.

UNIT IV

Entrepreneurship

Development forWomen Women entrepreneurship development in agriculture and agro processing:current status, women led enterprises, supporting organizations and schemes,Govt. policies, entrepreneurship development programme and process for women in agriculture.

Practical

□ Visit to a village for understanding rural gender roles and responsibilities as groups, followed by class presentation by groups

□ Exercise for capturing shifts in gender roles and responsibilities

□ Conducting gender analysis in a village using gender analysis techniques

□ Visit to agencies supporting women empowerment followed by report presentation. (Each student to visit a different organization such as State Rural Livelihood Mission, Women Development Corporation, Department of Agriculture, Important NGOs working for women empowerment)

□ Exercise for identification and prioritization of issues affecting/needs for women empowerment

□ Interaction with a successful women entrepreneur/ SHG

Suggested Readings

AGRIPROFOCUS 2014. Gender in value chains Practical toolkit to integrate a gender perspective in agricultural value chain development https://agriprofocus.com/upload/ToolkitENGender_in_Value_ChainsJan2014compressed1415203230.pdf

Christine J, Nafisa F and Taylor DS. 2014. Gender and Inclusion Toolbox: Participatory Research in Climate Change and Agriculture. Global Forum for Rural Advisory Services, Switzerland. http://www.gfras.org/en/component/phocadownload/category/17-gender.html?download=456:gender-and-inclusion-toolbox-participatory-research-in-climatechange-and-agriculture

Colverson KE. 2015. Gender into Rural Advisory Services. Global Forum for Rural Advisory Services, Switzerland. http://www.g-fras.org/en/good-practice-notes/integrating-gender-intorural-advisory-services.html#SNote1

Cristina M, Deborah R, Andrea A, Gale S, Kathleen C and Mercy A.2013. Reducing the Gender Gap in Agricultural Extension and Advisory Services: How to find the best fit for men and women farmers MEAS Discussion Paper 2, Modernizing Extension and Advisory Services. https://meas.illinois.edu/wp-content/uploads/2015/04/Manfre-et-al-2013-Genderand-Extension-MEAS-Discussion-Paper.pdf

Fanzo, J., Marshall, Q., Wong, J., Merchan, R.,

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ORGANIZATIONAL BEHAVIOUR & DEVELOPMENT MSAE-205 (2+1)

Unit 1: Basics of Organization
1 Introduction to organizations-concept and characteristics of organizations; Typology of organizations; Theories of organizations: nature of organizational theory, Classical theories, Modern management theories, System Theory; Criticisms and lessons learnt/analysis

Unit 2: Basics of Organizational Behaviour Concepts of Organisational Behaviour, Scope, Importance, Models of Organisational Behaviour

Unit 3: Individual Behaviour in Organizations Introduction, Self-awareness, Perception and Attribution, Learning Systems approach to studying organization needs and motives – attitude, values and ethical behavior, Personality Motivation-Concept & Theories, Managing
motivation in organizations

Unit 4: Group Behaviour in Organization Foundations of group, group behaviour and group dynamics; Group Development and Cohesiveness, Group Performance and Decision Making, Intergroup Relations; Teams in Organizations-Team building experiential exercises Interpersonal Communication and Group; Leadership: Meaning, types, Theories and Perspectives on Effective Leadership, Power and Influence, managing Conflict and Negotiation skills Job/stress management, decision-making problem-solving techniques

Unit 5: Productive Behaviour and Occupational Stress Productive behaviour - Meaning, dimension; Job analysis and Job performance – meaning, dimensions, determinants and measurement; Job satisfaction and organizational commitment - meaning, dimensions and measures roles and role clarity; Occupational stress – meaning, sources, theories and models, effects, coping mechanism, effects and management; Occupational stress in farming, farmer groups/ organizations, research and extension organizations

Unit 6: Organizational System Organizations Structure- Need and Types, Line & staff, functional, committee, project structure organizations, centralization & decentralization, Different stages of growth and designing the organizational structure; Organizational Design-Parameters of Organizational Design, Organization and Environment, Organizational Strategy, Organization and Technology, Power and Conflicts in Organizations; Organizational Decision-Making; Organizational Culture vs Climate; Organizational Change; Organizational Learning and Transformation
Unit 1: Overview of Organizational Development Concept of Organizational Development, Importance and Characteristics, Objectives of OD, History and Evolution of OD, Implications of OD
Values
Unit 2: Managing the Organizational Development Process Basic Component of OD Program-Diagnosis
contracting and diagnosing the problem, Diagnostic models, open systems, individual level group level and organizational level diagnosis; Action-collection and analysis for diagnostic information, feeding back the diagnosed information and interventions; Program Management- entering OD relationship, contracting, diagnosis, feedback, planned change, intervention, evaluation
Unit 3: Organizational Development Interventions Meaning, Importance, Characteristics of
Organization development Interventions, Classification of OD Interventions-Interpersonal
interventions, Team Interventions, Structural
Interventions, Comprehensive Interventions
Unit 4: Organizational Development Practitioner or Consultant Who is OD consultant? Types of OD consultants and their advantages, qualifications, Comparison of traditional consultants Vs. OD
consultants, Organizational Development process by the practitioners skills and activities.

Reference:-
Bhattacharyya DK. 2011. Organizational Change and Development, Oxford University Press. Hellriegel D, Sloccum JW and Woodman. 2001. Organizational Behaviour.Cincinnati, Ohio : South-Western College Pub.
Luthans F. 2002. Organizational Behaviour. Tata McGraw-Hill, New York
Newstrom JW and Davis K. 2002. Organizational Behaviour: Human
behaviour at Work. Tata-McGraw Hill, New Delhi.
Peter MS. 1998. The Fifth Discipline: The Art and Practice of Learning Organization. Random House, London.

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MSAE-305 Capacity Development 2+1

L	T	P	CR
2		1	3

Detail Contents

Unit : 1 – 25%

Unit : 2 - 25%

Unit : 3 - 25%

Unit : 4 - 25%

Aim of the course

- To understand the concepts of training, capacity building, capacity development and human resource development in the context of roles and responsibilities of extension professionals
- To discuss capacity development- approaches, strategies, needs assessment and methods / tolls
- To help you devise, organize, implement and evaluate capacity development programmes

Theory

Block 1: Introduction to Capacity Development

Unit 1: Capacity Development–An Overview

Training, capacity building, capacity development and HRD-Meaning and differences; Need and principlesof capacity development; Types and levels of capacities - Institutional capacities (include the rules,regulations and practices that set the overarching contextual environment), Organizational capacities (howvarious actors come together to perform given tasks), Individual capacities (technical, functional andleadership skills). Types of capacity building - Based on structure (structured, semi-structured&unstructured), Based on context (orientation, induction and refresher), and other categories (online,Webinar, distance etc.). Components of capacity development; Capacity development cycle.

Unit 2: Capacity Development- Approaches and Strategies

Capacity Development Dilemma- Theory versus Practice, Trainee versus Task, Structured versus Unstructured, Generic and Specific; Approaches in Capacity Development -Informative approach,Participatory approach, Experimental approach/ Experiential, Performance based approach; CapacityDevelopment Strategies - Academic strategy, Laboratory strategy, Activity strategy, Action strategy,Personal development strategy, Organizational development strategy

Unit 3: Planning and Organization of Capacity Development Programmes

Steps in Designing and Planning of Capacity Development- Step 1. Select the participants, Step 2. Determine the participants' needs, Step 3. Formulate goal and objectives, Step 4. Outline the content, Step 5Develop instructional activities, Step 6. Prepare the design, Step 7. Prepare evaluation form, Step 8. Determine follow-up activities; Organising capacity development programme; Operational arrangements at different stages- Before the programme, During the programme, Middle of the programme, At the end of the programme, After the programme, Follow up; Stakeholders' responsibilities.

Block 2: Capacity Development Needs Assessment

Unit 1: Planning and Organization of Capacity Development Programmes

Concept of Need Assessment; Approaches in Need Analysis- Performance Analysis, Task Analysis, Competency Study; Needs Survey.

Unit 2: Capacity Development Needs Assessment Methods

Data Collection Methods in.Identifying Needs - Rational Methods (Observation, Informal talks, Complaints, Comparison, Analysis of report, Opinion poll, Buzz session, Analysis of the new programme),

Empirical Methods (Job analysis, Performance evaluation, Checklist or Questionnaire Method, Tests, Critical Incident Technique, Card Sort Method, Focus Group Discussion, Interview, SWOT Analysis); Information and Skills required in Need Analysis; Identification of Needs through Task Analysis - Task identification, Task Analysis, Gap Analysis.

Block 3: Capacity Development Institutions and Management

Unit 1: Capacity Development Institutions

Capacity Developer (Trainer): Meaning and concept; Types of Capacity Developers (regular, ad-hoc, part time, guest and consultants); Roles of Capacity Developer (explainer, clarifier, supporter, confronter, role model, linker, motivator, translator/ interpreter, change agent); Good Capacity Developer – Qualities, skills and roles Qualities, Skills (Intrapersonal & Inter personal), Roles (Manager, Strategist, Task Analyst, Media Specialist, Instructional Writer, Marketer, Facilitator, Instructor, Counsellor, Transfer Agent, Evaluator); Capacity Development Centres and Locations; Organisation's Role in Capacity Development.

Unit 2: Capacity Development Project Formulation

Project Proposal: Concept and Meaning; Steps in Project Formulation- Review of past proposals, Consulting experts, consultants, and previous organizers, Review past project evaluation reports, Interact with the prospective beneficiaries; Format for Writing Project Proposal (LFA).

Block 4: Capacity Development Process and HRD

Unit 1: Capacity Development Methods and Tools

Capacity Development Methods –Lecture, Discussion, Syndicate, Seminars, Conference, Symposium, Role Play, Case study, Programmed Instruction, T - group/ Laboratory methods; Factors Determining Selection of Methods - Capacity development objectives, subject matter, categories of participants, and the available resources like time, location, budget; Capacity Development Aids.

Unit 2: Evaluation

Capacity Development Programme Evaluation - Meaning & Importance; Purpose of Evaluation; Principles of Evaluation; Types of Evaluation – Formative, Summative, Kirkpatrick's four levels of evaluation; Process of Evaluation- Evaluation at the beginning, Evaluation during the programme, Evaluation at the end; Use of evaluation findings; Statistical Tools for evaluation.

Unit 3: Impact Assessment

Impact Assessment- Meaning, Need, Features, Benefits, Concepts; Indicators for Impact Assessment - Direct indicators, Indirect or proxy indicators, Quantitative indicators, Qualitative indicators, Result chain / hierarchy of indicators; Methods of Impact Evaluation- Learning retention of participants (KOSA), Impact on the job performance, Impact on organizational effectiveness, Impact on stakeholder's competency.

Unit 4: Human Resource Development

HRD: Meaning, Importance and Benefits; Types of HRD Systems & Sub-systems Career system (Manpower planning, Recruitment, Career planning, Succession planning, Retention), Work system (Role analysis, Role efficacy, Performance plan, Performance feedback and guidance, Performance appraisal, Promotion, Job rotation, Reward), Development system (Induction, Training, Job enrichment, Selflearning mechanisms, Potential appraisal, Succession development, Counselling, Mentor system), Selfrenewal system (Survey, Action research, Organisational development interventions), Culture system (Vision, mission and goals, Values, Communication, Get together and celebrations, Task force, Small groups); Components of HRD System - Performance Appraisal, Potential Appraisal, Task System, Development System, Socialisation System, Governance; Functions of HRD-Organisational Development, Career Development, Capacity Development.

Practicals

- Capacity development needs assessment exercise
- Capacity development project formulation exercise
- Planning organizing and conducting an extension capacity development programme
- Designing a programme
- Writing learning objectives
- Developing objectives into curriculum
- Training plan
- Organizing capacity development workshop

• Evaluation with pre- and post-training tests
• Training methods – Practicing each method mentioned in contents as group exercise

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MSAE – 303: Visual and Graphic Communication

L	T	P	CR
1		1	2

Course objective:-

1. Discuss the Visual and Graphics
2. To know the theories of visual perception; Classification of visuals
3. To know designing message for visuals; designing and layout of visual elements, balancing

Detail Contents

Unit : 1 – 25%

Unit : 2 - 25%

Unit : 3 - 25%

Unit : 4 - 25%

Unit 1

Role of visuals in communication: characteristics of visuals, functions of visuals and graphics;

Unit 2

Theories of visual perception; Classification of visuals: visual formats, selection of visuals; Designing message for visuals; designing and layout of visual elements, balancing

Unit 3

Graphic formats and devices, typology; Presentation of scientific data: general and exact data; Principles of production of visuals, low-cost visuals, photographs, reprographic visuals,

Unit 4:

PC based visuals, and digitized video materials in multi-media production; Designing visuals for print and TV/Video media; Pre-testing and evaluation of visuals.

Practical

Preparation of low cost non-projected visuals; Preparation of projected visuals; Designing and layout of visuals for charts, posters, flash cards etc.; Generating computer-aided presentation graphics; Scanning of visuals and evaluation of visuals assignments.

Course Learning Outcomes (CLO)

1.Assessment methods may include written and practical examinations, homework assignments and discussion activities.

2.Explain the Visual and Graphics Communication

3. Student knowledge application, laboratory performance, problem solving skills, punctuality and attendance, participation, and communication.

Mapping of course outcome with programme outcome and programme specific outcome

PO & PSO / CO	PO_1	PO_2	PO_3	PO_4	PO_5	PSO_1	PSO_2	PSO_3	PSO_4	PSO_5
CO_1	3	2	2	3	2	3	2	1	-	3
CO_2	2	3	-	3	1	3	1	-	1	3
CO_3	3	2	3	3	3	3	3	1	1	3
Average	2.7	2.7	1.7	3	2	3	2	0.7	0.7	3

Text books:-

Ray, G. L. and Mondal, S. 2005. Visual and Graphics communication, Farm and Rural Journalism, Public Relations, Kalyani Publication, Ludhiana.

Signature:-

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Course Code: MSAE-205

Title: ORGANISATIONAL BEHAVIOR AND DEVELOPMENT

WHY THIS COURSE?

In changing and competitive world, the survival of any organization is dependent on its ability to adjust to the new challenges, adapt its structure and develop the competencies needed among its staff. This course is designed to understand the theory and practice relating to the processes of organizational behavior, development and change. It attempts to bring about change in the different levels of the organization (the individual, group andorganization) using a wide variety of interventions.

AIM OF THIS COURSE

- To understand the theory and practice relating to the processes of organizational behavior, development and change.
- To develop insight and competence in diagnostic and intervention processes and skills for initiating and facilitating change in organizations.
- To gain necessary self-insight, skills in facilitation, organizational development (OD) skills, group process and techniques, to become an effective change agents and OD consultants.
- To understand the behavior of individuals and small groups in organization with special focus on beliefs, attitudes and values, human inference - attribution, self concept, motivation, active listening, interpersonal communication, conflicts management.

BLOCK No.	Lecture No	Topic	Weightage	
1. ORGANIZATIONAL BEHAVIOR	**Unit 1: Basics of Organization**			
	1	Introduction to organizations-concept and characteristics of organizations; Typology of organizations;	2	6
	2,3	Theories of organizations: nature of organizational theory, Classical theories, Modern management theories, System Theory; Criticisms and lessons learnt/analysis	4	
	Unit 2: Basics of Organizational Behaviour			
	4	Concepts of Organisational Behaviour, Scope, Importance,	2	4
	5	Models of Organisational Behaviour	2	
	Unit 3: Individual Behaviour in Organizations			
	6	Introduction, Self-awareness, Perception and Attribution, Learning	3	11
	7	Systems approach to studying organization needs and motives – attitude, values and ethical behavior, Personality	4	
	8	Motivation-Concept & Theories, Managing motivation in organizations	4	
	Unit 4: Group Behaviour in Organization			
	9	Foundations of group, group behaviour and group dynamics; Group Development and Cohesiveness, Group Performance and Decision Making, Intergroup Relations;	3	13
	10	Teams in Organizations-Team building experiential exercises	2	
	11	Interpersonal Communication and Group;	2	
	12,13	Leadership: Meaning, types, Theories and Perspectives on Effective Leadership, Power and Influence, managing Conflict and Negotiation skills	4	
	14	Job/stress management, decision-making, problem-solving techniques	2	
	Unit 5: Productive Behaviour and Occupational Stress			
	15	Productive behaviour - Meaning, dimension;	2	12
	16	Job analysis and Job performance – meaning, dimensions, determinants and measurement;	2	

	17	Job satisfaction and organizational commitment - meaning, dimensions and measures roles and role clarity;	3	
	18	Occupational stress – meaning, sources, theories and models, effects, coping mechanism, effects and management;	3	
	19	Occupational stress in farming, farmer groups/ organizations, research and extension organizations	2	
	Unit 6: Organizational System			
	20	Organizations Structure- Need and Types, Line &staff, functional, committee, project structure organizations, centralization & decentralization, Different stages of growth and designing the organizational structure;	4	9

	21	Organizational Design-Parameters of Organizational Design, Organization and Environment, Organizational Strategy, Organization and Technology, Power and Conflicts in Organizations; Organizational Decision-Making;	3	
	22	Organizational Culture vs Climate; Organizational Change; Organizational Learningand Transformation	2	
2. ORGANISATIONAL DEVELOPMENT	**Unit 1: Overview of Organizational Development**			6
	23	Concept of Organizational Development, Importance and Characteristics, Objectives of OD,	3	
	24	History and Evolution of OD, Implications of OD Values	3	
	Unit 2: Managing the Organizational Development Process			
	25	Basic Component of OD Program-Diagnosis- contracting and diagnosing the problem, Diagnostic models, open systems, individual level group level and organizational level diagnosis;	3	8
	26	Action-collection and analysis for diagnostic information, feeding back the diagnosed information and interventions;	2	
	27	Program Management- entering OD relationship, contracting, diagnosis, feedback, planned change, intervention, evaluation	3	
	Unit 3: Organizational Development Interventions			
	28	Meaning, Importance, Characteristics ofOrganization development Interventions,	2	5
	29	Classification of OD Interventions-Interpersonal interventions, Team Interventions, Structural Interventions, Comprehensive Interventions	3	
	Unit 4: Organizational Development Practitioner or Consultant			
	30	Who is OD consultant? Types of OD consultants and their advantages, qualifications,	2	6
	31	Comparison of traditional consultants Vs. OD consultants,	2	
	32	Organizational Development process by the practitioners skills and activities.	2	
			80	**80**

RESOURCES

Bhattacharyya DK. 2011. Organizational Change and Development, OxfordUniversity Press.

Hellriegel D, Sloccum JW and Woodman. 2001. Organizational Behaviour. Cincinnati, Ohio : South-Western College Pub.

Luthans F. 2002. Organizational Behaviour. Tata McGraw-Hill, New York

Newstrom JW and Davis K. 2002. Organizational Behaviour: Humanbehaviour at Work. Tata-McGraw Hill, New Delhi.

Peter MS. 1998. The Fifth Discipline: The Art and Practice of Learning Organization. Random House, Lond

Signature:-

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Course Title : ICTs for Agricultural Extension and Advisory Services

I. Course Code : MSAE-306

II. Credit Hours : 2+1

III. Why this course?

Information and Communication Technologies (ICTs) are continuously evolving. More ICT applications having better relevance to extension and advisory services (EAS) are currently available considering the human and other resource constrains faced by EAS, ICTs can supplement and complement EAS extension efforts in a cost-effective way. Extension professionals should have sound knowledge of ICTs and comprehensive understanding on its various applications for effectively deploying these in EAS provision. This course will provide knowledge and hands-on-experience on ICT applications relevant for EAS.

IV. Aim of the course

- To discuss different ICT initiatives, knowledge management process and application aspects
- To orient students on advances in smart/ disruptive technologies and data analytics
- Hands on experience in navigating

ICTsThe course is organized as

follows:

No.	Blocks	Units
1	Introduction to Information and Communication Technologies (ICTS)and e-Extension	1. ICTs- Concepts and Status 2. ICTs in Knowledge Management 3. e-Extension initiatives in Agriculture and allied sectors
2	Application of ICTs in Extension andadvisory services	1. ICT Applications 2. ICT Expert Systems 3. ICT Networks
3	Knowledge management and Standards	1. Policies in Knowledge Management 2. Web Standards 3. Social Media Applications to engage audience
4	Smart and disruptive Technologies and advanced analytics for agriculturalextension	1. Smart Technologies 2. Human Computer Interactions

V. Theory

Block	Unit	Lecture	Content	Weightage
1. Introduction toInformation & Communication Technologies (ICTs) &E-extension	1. ICTs - Concepts &Status	1, 2	ICTs- meaning, concepts, basics of ICTs, global &national status, types & functions of ICTs, innovations.	**6**
		3, 4	Meaning of e-Governance, e-learning, mLearning,advantages and limitations of ICTs.	**6**

	2. ICTs in Knowledge Management	5, 6	Knowledge management-meaning, approaches &tools. Role of ICTs in Agricultural Knowledge Management.	**6**
	3. e-Extension initiatives in Agriculture & allied sectors	7, 8	e-Extension, overview on Global & national e-extension initiatives, Inventory of e-Extension initiatives in Agriculture & allied sectors from Central and State governments, ICAR, SAUs, private sector & NGO initiatives in India.	**6**
Block 2: Application of ICTs in Extension and Advisory Services	1: ICT Applications	9, 10	Knowledge centres (tele centres), digital kiosks, websites & web portals, community radio, farmers call centres, mobile phone based advisory services and mobile applications (mExtension, mLearning),	**6**
		11, 12	Self-learning CDs on Package of practices, social media, digital videos, Market Intelligence and Information Systems- ICT enabled Supply-Chains and Value-Chains/ e-Marketing (e-NAM,Agmarknet, *etc.*).	**6**

	2. ICT Expert Systems	13, 14	Expert System / Decision Support System/ Management Information Systems, Farm Health Management & Intelligence System for Plant Health, Animal Health, Soil Health, Fishery, Water, Weather, etc. Social Sciences: Agricultural Extension Education	**6**
	3 ICT Networks	15, 16	Global & regional knowledge networks, international information management systems, e-Learning platforms (MOOCS, Course CCRA, EduEx, *etc*), e-Governance Systems;	**6**
		17	Digital networks among extension personnel, Farmer Producers Organisations (FPOs)/ SHGs/Farmers Groups.	**3**
Block 3: Knowledge Management an dStandards	1. Policies in Knowledge Management	18, 19	Global policy / Standards on e-Governance, National policy on e-governance, Open Data / Open Gov Standards & Open Source etc.	**6**
		20	Language Technology Applications; National e-Agriculture policy/ Strategies/ guidelines.	**3**
	2. Web Standards	21, 22	Web standards, creating & writing for webportals,Development of mobile applications, .	**6**
		23, 24	Developing digital videos storyboard, video recording- video editing, types of blogs & writingguidelines	**6**
	3. Social Media Applications toengage audience	25	Video conference, live streaming & webinars,	**4**
		26	Types & functions of social media applications, guidelines for preparing social media content,engaging audience and data-analytics.	**6**
Block 4: Smart and Disruptive Technologies and Advanced Analytics for Agricultural Extension	1. Smart Technologies	27, 28	Open technology computing facilities, System for data analytics/ mining/ modelling/ Development of Agricultural simulations; Remote Sensing, GIS, GPS, Information Utility (AIU); disruptive technologies- Analysis; Internet of Things (IoTs), Drones, Artificial intelligence (AI), block chain technology, social media & Big Data analytics for extension.	**6**

	2. Human Computer Interactions	29, 30	Human Centered Learning/Ergonomics/ Human Computer Interactions-Meaning; Theories of multimedia learning - Sweller's cognitive load theory, Mayer's cognitive theory of multimedia learning, Schnotz's integrative model of text and picture comprehension, van Merriënboer's four-component instructional design model for multimedia learning; Basic Principles of Multimedia Learning - Split-attention, Modality, Redundancy, Coherence, Signaling, segmenting, pre-training, personalisation, voice embodiment;	**6**
		31, 32	Advanced principles - Guided discovery, worked examples, Self-explanation, drawing, feedback, multiple representation, Learner control, animation, collaboration, prior knowledge, and working memory. Designing ICT gadgets based on human interaction principles - Interactive design- Meaning, importance; Approaches of interactive design - user-centered design, activity centered design, systems design, and genius design; Methods of interactive design - Usability testing methods.	**6**
			Total Weightage	**100**

VI. Practicals

- Content and client engagement analysis
- Designing extension content for ICTs
- Creating and designing web portals, blogs, social media pages
- Developing digital videos
- Live streaming extension programmes and organising webinars
- Working with Farmers call centres
- Engaging with professional digital networks
- Writing for digital media

VII. Teaching methods/activities

- Lecture
- Guest Lectures
- Assignment (Reading/Writing/ developing mApps/ media management/Social media initiatives)
- Student's Book/Publication Review
- Student presentation
- Group Work
- Student's interview of ICT practitioners/ champions
- Documenting good practices and case studies
- Review of ICT policy documents and guidelines/ standards
- Short internship with ICT projects

VIII. Learning outcome

After successful completion of this course, the students are expected to be able to:

- Appreciate the importance of the ICTs in EAS
- Understand the ICT application aspects
- Critically evaluate ICT initiatives and smart/disruptive technologies
- To execute extension functions by applying ICTs and
- Engage stakeholders in knowledge management process

IX. Suggested Reading

Andres D and Woodard J. 2013. *Social media handbook for agricultural development practitioners.* Publication by FHI360 of USAID. http://ictforag.org/toolkits/ social/ SocialMedia4 AgHandbook.pdf

Barber J, Mangnus E and Bitzer V. 2016. *Harnessing ICT for agricultural extension.* KIT Working Paper 2016: 4. https://213ou636sh0ptphd141fqei1-wpengine.netdna-ssl.com/sed/wp-content/uploads/sites/2/2016/11/KIT_WP2016-4_Harnessing- ICT-for-agricultural-extension.pdf

Bheenick K and Bionyi I. 2017. *Effective Tools for Knowledge Management and Learning in Agriculture and Rural Development.*

CTA Working paper. https://publications.cta.int/media/publications/downloads/1986_PDF.pdf

Fafchamps M and Minten B. 2012. *Impact of SMS based Agricultural Information on Indian Farmers.* The World Bank Economic Review, Published by the Oxford University Press on behalf of the International Bank for Reconstruction and Development.

FAO 2011. *E-learning methodologies a guide for designing and developing e-learning courses.*

Food and Agriculture Organization of the United Nations. http://www.fao.org/docrep/015/i2516e/i2516e.pdf

George T, Bagazonzya H, BallantyneP, Belden C, Birner R, Del CR and Treinen S. 2017. *ICT in agriculture: connecting smallholders to knowledge, networks, and institutions.* Washington,

Websites

FAO–Food and Agricultural Organisation (Research and Extension)http://www.fao.org/research-and-extension/en/

CTA–The Technical Centre for Agricultural and Rural Cooperation: Digitalization– https://www.cta.int/en/channel/digitalisation-sid05951b8c7-e611-4f34-9ae6-8c0fc0c822bc**GFRAS**–Global Forum for Rural Advisory Services–

http://www.g-fras.org/en/ **AESA**–Agricultural Extension in South Asia–http://www.aesanetwork.org/

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MSAE-307 Evaluation and Impact Assessment 2+1

Aim of the course

- To orient students on the importance of evaluation and impact assessment
- To develop capacities for evaluation and impact assessment
- Discuss ways of conducting evaluations and impact assessment

Theory

Block 1: Programme Evaluation

Unit 1: Introduction to Evaluation

Concept of Evaluation: Meaning and concept in different contexts; Why Evaluation is Done and When? Programme planning, analyse programme effectiveness, decision making, accountability, impact assessment, policy advocacy; Objectives, types, criteria and approaches of programme evaluation, evaluation principles; the context of program evaluation in agricultural extension; Role and Credibility of Evaluator: Role as educator, facilitator, consultant, interpreter, mediator and change agent. Competency and credibility of evaluator.

Unit 2: Evaluation Theories

Evaluation theory vs. practice – synergistic role between practice and theory in evaluation; Evaluation theories - Three broad categories of theories that evaluators use in their works - programme theory, social science theory, and evaluation theory (other theories/ approaches - Utilization-Focused Evaluation & Utilization-Focused Evaluation (U-FE) Checklist, Values Engaged Evaluation, Empowerment Evaluation, Theory-Driven Evaluation). Integration between theory and practice of evaluation: –evaluation forums, workshops, conferences and apprenticeship/ internship.

Block 2: Evaluation Process

Unit 1: How to Conduct Evaluation

Ten Steps in programme evaluation: (1) Identify and describe programme you want to evaluate (2) Identify the phase of the programme(design, start-up, ongoing, wrap-up, follow-up) and type of evaluation study needed (needs assessment, baseline, formative, summative, follow-up) (3) Assess the feasibility of implementing an evaluation (4) Identify and consult key stakeholders (5) Identify approaches to data collection (quantitative, qualitative, mixed) (6) Select data collection techniques (survey interviews and questionnaires with different types) (7) Identify population and select sample (sampling for evaluation, sample size, errors, sampling techniques (8) Collect, analyse and interpret data (qualitative and quantitative evaluation data analysis) (9) Communicate findings (reporting plan, evaluation report types, reporting results, reporting tips, reporting negative findings (10) Apply and use findings (programme continuation/ discontinuation, improve on-going programme, plan future programmes and inform programme stakeholders).

Unit 2: Evaluating the Evaluation

Evaluating the Evaluation - 10 Steps as above with focus on conceptual clarity, representation of programme components and stakeholders, sensitivity, representativeness of needs, sample and data, technical adequacy, methods used for data collection and analysis, costs, recommendations and reports.

Block 3: Programme Management Techniques

Unit 1: SWOT Analysis and Bar Charts

SWOT Analysis – Concept, origin and evolution; SWOT As a Programme Management Tool; Conducting SWOT Analysis - Common Questions in SWOT Analysis; Advantages and Disadvantages of SWOT; Bar Charts (Gantt Charts and Milestone Charts) - Characteristics, advantages and limitations.

Unit 2: Networks

Networks – Introduction, origin and widely used networks (Programme Evaluation and Review Technique (PERT) and Critical Path Method (CPM), differences between PERT and CPM, advantages and

disadvantages. Networks Terminology – Activity, Dummy activity, Event (predecessor event, successor event, burst event, merge event, critical event), Earliest Start Time (EST), Latest Start Time (LST), Critical Path, Critical Activity, Optimistic time (To), Pessimistic time (Po), Most likely time (TM), Expected time (TE), Float or Slack, Event Slack, Lead time, Lag time, Fast tracking, Crashing critical path, Acclivity Table, Danglers, Normal Time. Rules for Preparation of Networks and Steps in Network Preparation with example.

Block 4: Programme Evaluation Tools

Unit 1: Bennett's Hierarchy of Evaluation

Introduction to Bennett's hierarchy – Background and description; Relation between programme objectives & outcomes at 7 levels of Bennett's hierarchy – Inputs, activities, participation, reactions, KASA changes, practice and behaviour changes, end results. Advantages and Disadvantages of Bennett's hierarchy

Unit 2: Logic Framework Approach (LFA)

Introduction to LFA – Background and description; Variations of LFA - Goal Oriented Project Planning (GOPP) or Objectives Oriented Project Planning (OOPP); LFA Four-by-Four Grid – Rows from bottom to top (Activities, Outputs, Purpose and Goal & Columns representing types of information about the events (Narrative description, Objectively Verifiable Indicators (OVIs) of these events taking place, Means of Verification (MoV) where information will be available on the OVIs, and Assumptions). Advantages and Disadvantages of LFA.

Block 5: Impact Assessment

Unit 1: Introduction to Impact Assessment

Concept of Impact Assessment: Meaning, concept and purpose in different contexts; Impact Assessment Framework: Meaning of inputs, outputs, outcomes, impacts and their relation with monitoring, evaluation and impact assessment.

Unit 2: Impact Assessment Indicators

Indicators for impact assessment – meaning and concept; Selecting impact indicators; Types of impact indicators for technology and extension advisory services - social and behavioral indicators, socio-cultural indicators, technology level indicators, environmental impact assessment indicators and institutional impact assessment indicators.

Unit 3: Approaches for Impact Assessment

Impact assessment approaches – Quantitative, qualitative, participatory and mixed methods with their advantages and disadvantages; Quantitative Impact Assessment Types – Based on Time of Assessment (Ex-ante and ex-post), Based on Research Design (Experimental, quasi experimental, Non-experimental). Econometric Impact Assessment: - (Partial Budgeting Technique, Net Present Value, Benefit Cost Ratio, Internal Rate of Return, Adoption Quotient, etc). Qualitative and Participatory Impact Assessment Methods.

Unit 4: Environment Impact Assessment (EIA)

Concept of EIA – Introduction, What it is? Who does it? Why it is conducted? How it is done?; Benefits and important aspects of EIA-risk assessment, environmental management and post product monitoring. Environmental Components of EIA – air, noise, water, biological, land; Composition of the expert committees and Steps in EIA process - screening, scoping, collection of baseline data, impact prediction, mitigation measures and EIA report, public hearing, decision making, monitoring and implementation of environmental management plan, assessment of alternatives, delineation of mitigation measures and EIA report; Salient Features of 2006 Amendment to EIA Notification - Environmental Clearance/Rejection, participants of EIA; Shortcomings of EIA and How to improve EIA process?

Practicals

- Search the literature using web / printed resources and identify evaluation indicators for the following:
  - Utilization-Focused Evaluation
  - Values Engaged Evaluation
  - Empowerment Evaluation
  - Theory-Driven Evaluation
- Visit Directorate of Extension in your university and enquire about extension programmes being implemented / coordinated by Directorate. Develop an evaluation proposal of any one programme using 'Ten Steps in Programme Evaluation' discussed in the theory class.
- Review any comprehensive programme evaluation report from published sources. Evaluate the report and write your observations following the 'Evaluating the Evaluation' approach.
- Identify at least four agriculture development programmes and their objectives being implemented in

your state. Write two attributes each on Strengths, Weaknesses, Opportunities and Threats related to the identified programme objectives in the SWOT grid.

- Identify an on-going development programme and make-out 6 activities from the programme.
- Draw a Gantt chart for 12 months programme activities.
- Write a report on evaluation hierarchy levels and indicators as per Bennett's hierarchy of evaluation for any development programme or project.

- Develop LFA four-by-four grid for any development programme or project with activities, outputs, purpose and goal and objectively verifiable indicators, means of verification & assumptions.
- Visit a nearby KVKs / ATIC. Select any agriculture technology with package of practices and extension advisory services promoted by KVK / ATIC. Identify impact assessment indicators for social and behavioral indicators, socio-cultural indicators, technology level indicators, environmental impact assessment indicators and institutional impact assessment indicators.
- Refer any Environment Impact Assessment report and analyse steps in EIA. Write your observations.

LECTURE SCHEDULE
Theory

Sr. No.	Topic	No. of Lecture (s)
	Block 1: Programme Evaluation	
	Unit 1: Introduction to Evaluation	
1	Concept of Evaluation: Meaning and concept in different contexts	1
2	Why Evaluation is Done and When? Programme planning, analyse programme effectiveness, decision making, accountability, impact assessment, policy advocacy; Objectives, types, criteria and approaches of programme evaluation, evaluation principles	
3	The context of program evaluation in agricultural extension	1
4	Role and Credibility of Evaluator: Role as educator, facilitator, consultant, interpreter, mediator and change agent. Competency and credibility of evaluator	
	Unit 2: Evaluation Theories	
5	Evaluation theory vs. practice – synergistic role between practice and theory in evaluation	2
6	Evaluation theories - Three broad categories of theories that evaluators use in their works - programme theory, social science theory, and evaluation theory (other theories/ approaches - Utilization-Focused Evaluation & Utilization-Focused Evaluation (U-FE) Checklist, Values Engaged Evaluation, Empowerment Evaluation, Theory-Driven Evaluation)	
7	Integration between theory and practice of evaluation: –evaluation forums, workshops, conferences and apprenticeship/ internship	1
	Block 2: Evaluation Process	
	Unit 1: How to Conduct Evaluation	

8	Ten Steps in programme evaluation: (1) Identify and describe programme you want to evaluate (2) Identify the phase of the programme(design, start-up, ongoing, wrap-up, follow-up) and type of evaluation study needed (needs assessment, baseline, formative, summative, follow-up) (3) Assess the-feasibility of implementing an evaluation (4) Identify and consult key stakeholders (5) Identify approaches to data collection (quantitative, qualitative, mixed) (6) Select data collection techniques (survey interviews and questionnaires with different types) (7) Identify population and select sample (sampling for evaluation, sample size, errors, sampling techniques (8) Collect, analyse and interpret data (qualitative and quantitative evaluation data analysis) (9) Communicate findings (reporting plan, evaluation report types, reporting results, reporting tips, reporting negative findings (10) Apply and use findings (programme continuation/ discontinuation, improve on-going programme, plan future programmes and inform programme stakeholders).	**3**
	Unit 2: Evaluating the Evaluation	
9	Evaluating the Evaluation - 10 Steps as above with focus on conceptual clarity, representation of programme components and stakeholders, sensitivity, representativeness of needs, sample and data, technical adequacy, methods used for data collection and analysis, costs, recommendations and reports	**2**

Sr. No.	Topic	No. of Lecture (s)
	Block 3: Programme Management Techniques	
	Unit 1: SWOT Analysis and Bar Charts	
10	SWOT Analysis – Concept, origin and evolution; SWOT As a Programme Management Tool	1
11	Conducting SWOT Analysis - Common Questions in SWOT Analysis; Advantages and Disadvantages of SWOT	
12	Bar Charts (Gantt Charts and Milestone Charts) - Characteristics, advantages and limitations	1
	Unit 2: Networks	
13	Networks – Introduction, origin and widely used networks (Programme Evaluation and Review Technique (PERT) and Critical Path Method (CPM), differences between PERT and CPM, advantages and disadvantages	1
14	Networks Terminology – Activity, Dummy activity, Event (predecessor event, successor event, burst event, merge event, critical event), Earliest Start Time (EST), Latest Start Time (LST), Critical Path, Critical Activity, Optimistic time (To), Pessimistic time (Po), Most likely time (TM), Expected time (TE), Float or Slack, Event Slack, Lead time, Lag time, Fast tracking, Crashing critical path, Acclivity Table, Danglers, Normal Time	2
15	Rules for Preparation of Networks and Steps in Network Preparation with example	
	Block 4: Programme Evaluation Tools	
	Unit 1: Bennett's Hierarchy of Evaluation	
16	Introduction to Bennett's hierarchy – Background and description	1
17	Relation between programme objectives & outcomes at 7 levels of Bennett's hierarchy – Inputs, activities, participation, reactions, KASA changes, practice and behaviour changes, end results	2
18	Advantages and Disadvantages of Bennett's hierarchy	
	Unit 2: Logic Framework Approach (LFA)	
19	Introduction to LFA – Background and description	1
20	Variations of LFA - Goal Oriented Project Planning (GOPP) or Objectives Oriented Project Planning (OOPP)	
21	LFA Four-by-Four Grid – Rows from bottom to top (Activities, Outputs, Purpose and Goal & Columns representing types of information about the events (Narrative description, Objectively Verifiable Indicators (OVIs) of these events taking place, Means of Verification (MoV) where information will be available on the OVIs, and Assumptions)	1
22	Advantages and Disadvantages of LFA	
	Block 5: Impact Assessment	
	Unit 1: Introduction to Impact Assessment	
23	Concept of Impact Assessment: Meaning, concept and purpose in different contexts	1
24	Impact Assessment Framework: Meaning of inputs, outputs, outcomes, impacts and their relation with monitoring, evaluation and impact assessment	1
	Unit 2: Impact Assessment Indicators	
25	Indicators for impact assessment – meaning and concept	1
26	Selecting impact indicators	

27	Types of impact indicators for technology and extension advisory services - social and behavioral indicators, socio-cultural indicators, technology level indicators, environmental impact assessment indicators and institutional impact assessment indicators	2

Sr. No.	Topic	No. of Lecture (s)
	Unit 3: Approaches for Impact Assessment	
28	Impact assessment approaches – Quantitative, qualitative, participatory and mixed methods with their advantages and disadvantages	1
29	Quantitative Impact Assessment Types – Based on Time of Assessment (Ex-ante and ex-post), Based on Research Design (Experimental, quasi experimental, Non-experimental). Econometric Impact Assessment: - (Partial Budgeting Technique, Net Present Value, Benefit Cost Ratio, Internal Rate of Return, Adoption Quotient, etc). Qualitative and Participatory Impact Assessment Methods	2
	Unit 4: Environment Impact Assessment (EIA)	
30	Concept of EIA – Introduction, What it is? Who does it? Why it is conducted? How it is done?; Benefits and important aspects of EIA-risk assessment, environmental management and post product monitoring	2
31	Environmental Components of EIA – air, noise, water, biological, land	
32	Composition of the expert committees and Steps in EIA process - screening, scoping, collection of baseline data, impact prediction, mitigation measures and EIA report, public hearing, decision making, monitoring and implementation of environmental management plan, assessment of alternatives, delineation of mitigation measures and EIA report	2
33	Salient Features of 2006 Amendment to EIA Notification - Environmental Clearance/Rejection, participants of EIA	1
34	Shortcomings of EIA and How to improve EIA process?	1
	TOTAL	32

Practicals

Sr. No.	Topic	No. of Practicals (s)
1	Search the literature using web / printed resources and identify evaluation indicators for the following: □ Utilization-Focused Evaluation □ Values Engaged Evaluation □ Empowerment Evaluation □ Theory-Driven Evaluation	1
2	Visit Directorate of Extension in your university and enquire about extension programmes being implemented / coordinated by Directorate. Develop an evaluation proposal of any one programme using 'Ten Steps in Programme Evaluation' discussed in the theory class	2
3	Review any comprehensive programme evaluation report from published sources. Evaluate the report and write your observations following the 'Evaluating the Evaluation' approach	2
4	Identify at least four agriculture development programmes and their objectives being implemented in your state. Write two attributes each on Strengths, Weaknesses, Opportunities and Threats related to the identified programme objectives in the SWOT grid	2
5	Identify an on-going development programme and make-out 6 activities from the programme	2

6	Draw a Gantt chart for 12 months programme activities	**1**
7	Write a report on evaluation hierarchy levels and indicators as per Bennett's hierarchy of evaluation for any development programme or project	**1**
8	Develop LFA four-by-four grid for any development programme or project with· activities, outputs, purpose and goal and objectively verifiable indicators, means of verification & assumptions	**2**

Sr. No.	Topic	No. of Practicals (s)
9	Visit a nearby KVKs / ATIC. Select any agriculture technology with package of practices and extension advisory services promoted by KVK / ATIC. Identify impact assessment indicators for social and behavioral indicators, socio-cultural indicators, technology level indicators, environmental impact assessment indicators and institutional impact assessment indicators	2
10	Refer any Environment Impact Assessment report and analyse steps in EIA. Write your observations	1
	TOTAL	16

Suggested Reading

Adrienne M, Gundel S, Apenteng E and Pound B. 2011. Review of Literature on Evaluation Methods Relevant to Extension. Lindau, Switzerland: Global Forum for Rural Advisory Services, Lindau, Switzerland

Bagnol B. 2014. Conducting participatory monitoring and evaluation. Pages 81-85 in FAO, Decision tools for family poultry development. FAO Animal Production and Health Guidelines, No. 1 6. Rome, Italy: FAO.

Bennett CF. 1979. Analyzing impacts of extension programs. Washington, D.C., USA: U.S. Department of Agriculture.

Boyle R and Le Maire D. 1999. Building effective evaluation capacity: lessons from practice. New Brunswick, NJ: Transaction Publishers.

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MSAE-111 Managing Extension Organizations (3+1)

Objective

By the end of the course students will be able to

- Understand management related terminologies and concepts and demonstrate their knowledge and skills on various management functions, as applicable to extension organizations.
- Analyse organizational structures, functions and interlinkages in public and private sector extension management.
- Critically analyse and apply decision making approaches, leadership approaches and motivation approaches to manage extension organizations.
- Make sound decisions, lead, motivate, coordinate and control extension management activities.

Theory

Block	Unit No.	Lecture No.	Topic	*Weightage*
Block 1: Basics of Management	Unit 1: Management- An Over view	1-2	Management and Extension management – Meaning, concept, nature and importance; and theories of management.	6
		3-4	Management, administration and supervision -meaning, definition and scope; Approaches to management,	6
		5-6	Principles, functions and levels of management;	6
		7-8	Qualities and skills of a manager; Interpersonal relations in the organization; Reporting and budgeting	6
Block 2: Management in different types of Extension Organizations	Unit 1: Extension Management in public, private sector and other sectors	9-11	Extension management (POSDCORB) in public sector, Department of Agriculture, Agricultural Technology Management Agency (ATMA), Krishi Vigyan Kendra (KVK), SAUs, ICAR Institutes, Private sector, Cooperatives, NGOs, FPOs etc. Organisational Structure, Relations between different units- Challenges in management	9
	Unit 2: Concepts in Management	12-13	Decision making – Concept, Types of decisions, Styles and techniques of decision making, Steps in DM Process, Guidelines for making effective decisions;	6
		14-15	Human Resource Management: Manpower planning, Recruitment, Selection, Placement and Orientation, Training and Development; Dealing with fund and staff shortages in different extension organizations (KVK, ATMA etc.);	6
		16-17	Leadership – Concept, Characteristics, Functions, Approaches to leadership, Leadership styles;	6
		18	Authority and responsibility, Delegation and decentralization, line and staff relations;	3
		19	Challenges of co-ordination in extension organizations; Managing interdepartmental coordination and convergence between KVK, ATMA and line departments; Coordinating pluralism in extension services; Challenges in managing public-private partnerships (PPPs) at different levels in agricultural development in general and extension in particular;	4
		20	Performance appraisal – Meaning, Concept, Methods.	4
Block 3:	Unit 1:	21-22	Managing work motivation – Concept, Motivation and Performance, Approaches to motivation,	6

Motivation and Organizational Communication	Motivation and Communication	23-24	Team building; Mentoring, Team work and team-building strategies;	6
		25-26	Organizational Communication – Concept, Process, Types, Networks, Barriers to Communication;	6
		27	Time management, Modernization of information handling	4
	Unit 2: Supervision and Control	28	Supervision – Meaning, Responsibilities, Qualities and functions of supervision, Essentials of effective supervision;	4
		29-30	Managerial Control – Nature, Process, Types, Techniques of Control, Observation, PERT and CPM,	6
		31-32	Management Information Systems (MIS): Concept, tools and techniques, MIS in extension organizations.	6

Practical

- Simulated exercises on techniques of decision making
- Study the structure and function of agro-enterprises, Designing organizational structure/ organograms.
- Group activity on leadership development skills
- Simulated exercise to understand management processes
- Field visit to extension organizations (ATARI, KVKs, NGOs), FPOs, dairy cooperatives to understand thefunctions of management
- Practical exercises on PERT & CPM
- Group exercise on development of short term and long-term plans for agro-enterprises
- Developing model agriculture-based projects including feasibility study, financial planning and cost-benefitanalysis

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