

AGRI-ECONOMICS AND ENTREPRENEURSHIP

ENAE 303

Lecture : 2
Tutorial : 1
Practical : 1

Year : III

Part : I

Course Objectives:

The objective of this course is to provide principles of agricultural economics, farm management, agribusiness and entrepreneurship. It also aims to equip students to apply economic analysis on market assessment, risk management, and business planning skills to develop successful and innovative agricultural ventures.

1 Agricultural Economics (3 hours)

- 1.1 Definition, scope, and importance of agricultural economics
- 1.2 Basic economic concepts (Demand and supply and its effect in production cost, indifference curves, elasticity, market equilibrium, price determination, consumer and producer surplus concept, goods and services)
- 1.3 Agricultural economics systems and models
- 1.4 Role of agriculture in economic development

2 Farm Management and Production Economics (5 hours)

- 2.1 Farm planning and budgeting
- 2.2 Input-output relationships (Production functions)
- 2.3 Cost concepts (Fixed; Variable; Marginal; Average and opportunity costs)
- 2.4 Farm management tools
- 2.5 Production function in agriculture
- 2.6 Law of diminishing returns
- 2.7 Stages of production
- 2.8 Optimal resource use and profit maximization
- 2.9 Economics of scale in agricultural production
- 2.10 Impact of technological change on production functions
- 2.11 Planning for food requirements

3 Agricultural Marketing and Price Analysis (5 hours)

- 3.1 Market structures in agriculture (Perfect competition, monopoly, oligopoly)
- 3.2 Price determination and government interventions
- 3.3 Agricultural value chains and supply chain management
- 3.4 Marketing functions and channels
- 3.5 Marketing margins and price spread
- 3.6 Agricultural commodity exchanges

- 4 Agricultural Finance and Risk Management (3 hours)**
- 4.1 Sources of agricultural credit (Formal and informal)
 - 4.2 Risk and uncertainty in farming (Production; Price; Institutional risks; Agricultural insurance and risk management)
 - 4.3 Insurance and contract farming
 - 4.4 Institutional and non-institutional credit
 - 4.5 Credit evaluation and risk assessment
- 5 Entrepreneurship in Agriculture (5 hours)**
- 5.1 Concept, importance and types of agri-entrepreneurship
 - 5.2 Identifying agribusiness opportunities
 - 5.3 Entrepreneurial process and ecosystem
 - 5.4 Opportunities in agricultural value chain
 - 5.5 Agri-business models and ventures
 - 5.6 Technology adoption and innovation in agriculture
 - 5.7 Rural entrepreneurship development
- 6 Business Plan Development (3 hours)**
- 6.1 Components of a business plan (Executive summary; Market analysis; Financial plan)
 - 6.2 Feasibility study and funding options
 - 6.3 Financial projections and investment analysis
 - 6.4 Risk assessment and mitigation strategies
- 7 Agri-Policies and Sustainable Entrepreneurship (4 hours)**
- 7.1 Government policies and interventions supporting agribusiness: Subsidy; Minimum support price (MSP); Export-import; Price support and procurement policies
 - 7.2 Subsidies and their economic impact
 - 7.3 Trade policies affecting agriculture: International competitiveness; Agricultural trade policy; WTO agreements; Global value chain; Agri-cooperatives
 - 7.4 Project management and operations
 - 7.5 Financial management for agri-business
 - 7.6 Sustainable and organic farming business models
- 8 Current Issues and Future Trends (2 hours)**
- 8.1 Sustainable agriculture and economics
 - 8.2 Climate change and agricultural economics
 - 8.3 Digital agriculture and precision farming (AI, IOT, remote sensing, satellite imaging, digital market places, block chain) economics
 - 8.4 Global trade and agricultural competitiveness

Tutorial**(15 hours)**

1. Problem-solving: Demand and supply curves, break-even analysis and profit maximization, production optimization problems and marginal analysis, price trend analysis of selected crops, price spread analysis and marketing efficiency measurements, partial budgeting, enterprise budgeting, interest rate, NPV and IRR calculations and loan repayment schedules
2. Analysis and debate: Impact of subsidies on small farmers, SWOT and PESTLE analysis of an agribusiness idea, agri-business pitching, success stories of agri-startups, business incubation centre, business model canvas for an agribusiness, government procurement policies
3. Case study: Impact of price fluctuations on farmers, crop insurance schemes, organic farming and permaculture farming startups, farm budgeting

Practical**(15 hours)**

1. Observation of a local farm for economic decision-making process
2. Study on price variations of a local agricultural market-Mandi
3. Observation of organic farm, permaculture farm or agri-export unit
4. Interaction with a bank officer for agricultural loan procedures
5. Data collection and analysis for input costs and yield from a farm
6. Preparation of farm budget using collected data and comparison of different cropping systems
7. Entrepreneurship opportunity mapping
8. Financial modeling for agricultural enterprises using software for projections
9. Visual presentation/application of farm simulation software, digital agri-finance platform, mobile agri-apps, agri-drones, satellite data and e-commerce platform

Final Exam

The questions will cover all the chapters in the syllabus. The evaluation scheme will be as indicated in the table below:

Chapter	Hours	Marks distribution*
1	3	3
2	5	6
3	5	6
4	3	3
5	5	3
6	3	3
7	4	3
8	2	3
Total	30	30

* There may be minor deviation in marks distribution.

References

1. Megginson, I.C., Byrd, M.J., Megginson, W.I. (2017). Small business management: An entrepreneur's guidebook. McGraw-Hill Education.
2. Kay, R.D., Edwards, W.M. (2023). Farm management. McGraw-Hill education.
3. Wills, W.J. (1979). An introduction to agricultural business management (Latest Edition). Interstate Printers & Publishers.
4. Borish, N.N., Kaplan, S. (1988). Economic analysis for engineering and managerial decision making (Latest Edition). McGraw-Hill.
5. Cramer, G.L., Jensen, C.W. (2001). Agricultural economics and agribusiness (Latest Edition). John Wiley & Sons Ltd.