



**Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore**  
**Shri Vaishnav Institute of Agriculture**  
**Generic Elective Course, III semester**

Course Code	Course Name	TEACHING & EVALUATION SCHEME						
		THEORY			PRACTICAL		L	T
		END SEM University Exam	Two term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*		
AGGE105	Basics of Agronomy	60	20	20	00	00	4	0
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**Course Objective:**

To familiarize students with the foundational concepts, systems, tools, and innovations in agronomy, focusing on its applied aspects in modern and sustainable agriculture. The course aims to build a contextual understanding of agronomic principles beyond basic cultivation practices.

**Course Outcomes:**

Upon successful completion of the course, students will be able to:

1. Explain the interdisciplinary scope and relevance of agronomy.
2. Analyse agroecological zones and their importance in land use and crop planning.
3. Understand and evaluate sustainable and emerging farming systems.
4. Utilize weather and climate data for agronomic decision-making.
5. Describe innovations in agronomy for improving resource use efficiency.

**Course Content:**

**Unit I: Evolution and Scope of Agronomy**

Historical development of agronomy and its relevance in modern agriculture, Interdisciplinary role of agronomy in soil, climate, and plant sciences, Sustainable development and food security.

**Unit II: Agroecological Zoning and Land Use Planning**

Concept of agroecological zones and classification in India, Principles of land capability classification, Role of GIS and remote sensing in agronomy

**Unit III: Sustainable and Emerging Agronomic Systems**

Organic farming and natural farming, Principles and components of Integrated Farming Systems (IFS), Crop residue management and conservation agriculture

**Unit IV: Weather, Climate, and Agronomic Decision-Making**


Elements of weather and their influence on crop growth, Rainfall variability and monsoon patterns in India, Role of IMD and agromet advisory services


**Unit V: Innovations in Agronomy and Resource Use Efficiency**


Precision agronomy: tools (drones, GPS, sensors) and applications, Integrated nutrient, weed, and water management (INM, IWM, IPM), Climate-smart agronomic interventions, Farmer Producer Organizations (FPOs)

**Suggested Readings:**

1. Reddy, T.Y. & Reddy, G.H.S. – *Principles of Agronomy*
2. ICAR – *Handbook of Agriculture*
3. Palaniappan, S.P. – *Cropping Systems in the Tropics*
4. Jat, R.K. et al. – *Conservation Agriculture: An Approach to Sustainable Agriculture*
5. Latest publications and reports from ICAR, FAO, and IMD

  
(Prof. Vinod Dhar)

  
Dean

  
Controller of Examination

  
Registrar

Chairperson      Faculty of Agriculture  
Board of Studies      SVVV, Indore (M.P.)  
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