

AMRITA VISHWA VIDYAPEETHAM

CURRICULUM

Ph.D. in Agronomy

ABSTRACT

Minimum Requirement	Credits
a) Major courses (include compulsory courses + optional courses in the field of Agronomy)	12
b) Minor Courses	6
c) Research Methodology	5
d) Seminar	2
e) Research	75
Total	100

a) Major Courses

This includes compulsory courses and optional courses

Based on the requirement, minimum 12 credits are to be offered from the major courses including all the compulsory courses. There need to be a minimum of 7 credits from any of the optional courses.

Course Code	Course Title	L T P C
25AGR601*	Current Trends in Agronomy	3 0 0 3
25AGR602	Recent Trends in Crop Growth and Productivity	2 0 1 3
25AGR603	Irrigation Management	2 0 1 3
25AGR604	Recent Trends in Weed Management	2 0 0 2
25AGR605	Integrated Farming Systems for Sustainable Agriculture	2 0 0 2
25AGR606	Soil Conservation and Watershed Management	2 0 1 3
25AGR607	Stress Crop Production	2 0 1 3

*Indicates core compulsory courses

In the LTPC format –The Practical (P) 1 credit corresponds to 2.5 hours

b) Minor Courses

Based on the requirement, minimum six credits are to be offered from any of the courses closely related to Agronomy from the list below

Course Code	Course Title	L T P C
-------------	--------------	---------

25AGR514	Fundamentals of Agricultural Meteorology	2 0 1 3
25AGR515	Crop-Weather Relationships	2 0 0 2
25AGR516	Crop Micrometeorology	2 0 1 3
25AGR517	Evapotranspiration and Soil Water Balance	2 0 1 3
25AGR518	Crop-weather models	1 0 2 3
25AGR519	RS and GIS Applications in Agricultural Meteorology	2 0 1 3
25AGR520	Organic Crop Production Systems	2 0 1 3
25AGR521	Farming Systems Suitable for Organic Management	2 0 1 3
25AGR522	Organic Certification Standards and Regulation	2 0 1 3
25AGR523	Organic Input Management and Production Technologies	2 0 1 3
25SAC502	Soil Fertility and Fertilizer Use	2 0 1 3
25SAC509	Remote Sensing and GIS Technique for Soil and Crop Studies	2 0 1 3
25SAC510	Analytical Techniques and Instrumental Methods in Soil and Plant Analysis	0 0 2 2
25SAC511	Management of Problematic Soils and Water	1 0 1 2
25SAC514	Introduction to Nanotechnology	2 0 1 3
25CRP501	Principles of Plant Physiology-I: Plant Water Relations and Mineral Nutrition	2 0 1 3
25CRP504	Physiological and Molecular Responses of Plants to Abiotic Stresses	2 0 1 3
25CRP507	Photosynthetic Processes, Crop Growth and Productivity and Concepts of Crop Modelling	2 0 1 3
25CRP512	Crop Growth Regulation and Management	2 0 0 2
25AGM505	Soil Microbiology	2 0 1 3
25AGM511	Biofertilizer Technology	2 0 1 3
25GPB502	Principles of Plant Breeding	2 0 1 3

c) Research Methodology

Based on the requirement, minimum five credits are to be offered under the supporting courses.

Code	Course Title	L T P C
25RM501	Research and Publication Ethics	2 0 0 2
25RM502	Mathematics for Applied Sciences	2 0 0 2
25RM503	Statistical Methods for Applied Sciences	3 0 1 4
25RM504	Experimental Designs	2 0 1 3
25RM505	Basic Sampling Techniques	2 0 1 3
25RM506	Applied Regression Analysis	2 0 1 3
25RM507	Data Analysis Using Statistical Packages	2 0 1 3
25MCA501	Computers: Fundamentals and Programming	2 0 1 3
25MCA502	Computer Organization and Architecture	2 0 0 2
25MCA503	Introduction to Communication Technologies, Computer Networking and Internet	1 0 1 2
25MCA504	Information Technology in Agriculture	2 0 0 2
25BIC505	Basic Biochemistry	3 0 1 4
25BIC506	Techniques in Biochemistry	2 0 2 4

*the course is mandatory major course, the student needs to complete in order to full fill the requirement of the degree.

d) Seminar

Course Code	Course Title	L T P C
25AGR691	Doctoral Seminar	1 0 0 1
25AGR692	Doctoral Seminar	1 0 0 1

e) Research

Course Code	Course Title	L T P C
25AGR699	Doctoral Research	0 0 75 75

Research will be offered during all the semesters based on the pattern shown below, however, there can be slight changes in credits allocation across the semesters depending on the research problems. The semester-wise minimum course allocation pattern is outlined below. However, based on the specific research problems, additional courses from the listed courses or Courses as decided by the Doctoral Committee and approved by the competent authority can be offered in any of the semesters as needed.

SEMESTER I

S.No.	Course No.	Course Title	L T P C
1.	25AGR601	Current trends in Agronomy	3 0 0 3
2.		Optional Major Course (any)	
3.		Minor Course (any)	
4.		Research Methodology (any)	
5.	25AGR699	Doctoral Research	0 0 1 1

SEMESTER II

S.No.	Course No.	Course Title	L T P C
1.	25RM501	Research and Publication Ethics	2 0 0 2
2.		Optional Major Course (any)	
3.		Optional Major Course (any)	
4.		Minor Course (any)	
5.		Research Methodology (any)	

6.	25AGR699	Doctoral Research	0 0 1 1
----	----------	-------------------	---------

*the course is mandatory major course the student needs to complete in order to full fill the requirement of the degree.

SEMESTER III

S.No.	Course No.	Course Title	L T P C
1.	25AGR691	Doctoral Seminar	1 0 0 1
2.	25AGR699	Doctoral Research	0 0 18 18
		Total Credits	1 0 18 19

SEMESTER IV

S.No.	Course No.	Course Title	L T P C
1.	25AGR692	Doctoral Seminar	1 0 0 1
2.	25AGR699	Doctoral Research	0 0 18 18
		Total Credits	1 0 18 19

SEMESTER V

S.No.	Course No.	Course Title	L T P C
1.	25AGR699	Doctoral Research	0 0 18 18
		Total Credits	0 0 18 18

SEMESTER VI

S.No.	Course No.	Course Title	L T P C
1.	25AGR699	Doctoral Research	0 0 19 19
		Total Credits	0 0 19 19