

COLLEGE OF AGRICULTURAL INFORMATION TECHNOLOGY  
ANAND AGRICULTURAL UNIVERSITY  
ANAND - 388 110 • GUJARAT • INDIA



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Read: Resolution of 45<sup>th</sup> meeting of the Academic Council held on 29-04-2017, Anand Agricultural University, Anand vide Item No. 45.32 has resolved as under

Adoption of Agriculture courses for  
B. Tech. (AIT) faculty as per 5<sup>th</sup> Deans'  
Committee for B. Sc. (Hons.) Agriculture

## NOTIFICATION

It is hereby notified to all concerned that vide Item No. 45.32 of the 45<sup>th</sup> meeting held on 29-04-2017, the Academic Council of the Anand Agricultural University, has resolved as under.

"The Academic Council approved the syllabus for Agriculture related subjects/courses for B. Tech. (AIT) degree and adopt as approved by the academic council for B. Sc. (Hons.) Agriculture degree as appended in Appendix A, Appendix B and Appendix C for its implementation in Anand Agricultural University, Anand for the students admitted from academic year 2017-18."

No. AAU/AIT/ACD/161-67 /2017

Date: 10/05/2017

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*D. S. Kathiriya*  
PRINCIPAL & DEAN

Copy F.W.Cs. to:

1. All Members of Academic Council of this University.
2. All Officers of this University.
3. All Deans and Principals, AAU, Anand

Copy to:

1. P.S. to Vice-Chancellor, Anand Agricultural University, Anand.
2. P.A. to Registrar, Anand Agricultural University, Anand.
3. Office of Registrar (Examination), Legal and Academic Branch(10 Copies).
4. Academic File

APPENDIX A

Existing Course			Fifth Deans Syllabus		
Course No.	Course Title	Credit	Course No.	Course Title	Credit
AGRI 111	Introduction to Agriculture	2+1	AGRI 111	Fundamentals of Agronomy	2+1
AGRI 112	Economic Botany	2+1	AGRI 112	Introductory Botany	2+1
MATH 111	Bio- Mathematics	2+1	MATH 111	Elementary Mathematics	2+0
PHY111	Fundamentals of physics	2+0	PHY111	Fundamentals of Physics	1+1
AGRI 121	Environmental Science, Ecology and Forestry	2+1	AGRI 121	Environmental studies and Disaster Management	2+1
AGRI 122	Field Crops ( <i>Kharif &amp; Rabi</i> )	2+1	AGRI 122	Crop Production Technology ( <i>Kharif and Rabi Crops</i> )	2+1
AGRI 123	Commercial Horticulture	2+1	AGRI 123	Production Technology for Fruit and Plantation Crops	1+1
AIT 122	Discrete Mathematics	2+1	AGRI 124	Fundamentals of Plant Pathology	1+1
AGRI 211	Entrepreneurship Development	2+1	AGRI 211	Entrepreneurship Studies and Business Communication	2+1
AGRI 212	Principles of Agricultural Economics	2+1	AGRI 212	Fundamentals of Agricultural Economics	2+0
AGRI 213	Soil, Plant Nutrient and water Management	2+1	AGRI 213	Fundamentals of Soil Science	2+1
STAT 211	Agricultural Statistics-I	2+1	STAT 211	Agricultural Statistics-I	2+1
AGRI 221	Introduction to Biotechnology	2+1	AGRI 221	Introductory Biotechnology	1+1
AGRI 222	Agricultural Meteorology	2+1	AGRI 222	Introductory Agro Meteorology and climate change	1+1
AGRI 223	Fundamental of Agricultural Extension	2+1	AGRI 223	Fundamentals of Agricultural Extension Education	2+1
STAT 221	Agricultural Statistics II Using SAS	2+1	STAT 221	Agricultural Statistics II	2+1

Existing Course			Fifth Deans Syllabus		
AGRI 311	GIS and Remote Sensing Techniques	2+1	AGRI 311	GIS and Remote Sensing Techniques	2+1
AGRI 312	Extension Methodologies for transfer of Agricultural Technology	2+1	AGRI 312	Communication skills and personality development	2+1
AGRI 324	Plant Protection	2+1	AGRI 324	Fundamentals of Entomology	2+1
<b>Elective – II</b>					
1	Fundamentals of Plant Physiology	2+1	1	Fundamentals of Crop Physiology	2+1
2	Principles of Genetics	2+1	2	Fundamentals of Genetics	2+1
<b>Elective – III</b>					
1	Fundamentals of Agricultural Engineering	2+1	1	Farm Machinery and Power	1+1
2	Basic Instrumentation and their Application in Automation	2+1	2	Basic Instrumentation and their Application in Automation	1+1
<b>Elective – IV</b>					
1	Crop Simulation Models	2+1	1	Crop Simulation Models	2+1
<b>Elective – V</b>					
1	Agricultural Marketing, Trade and Prices	2+1	1	Agricultural Marketing, Trade and Prices	2+1
<b>Elective – VI</b>					
1	Green house Technology	2+1	1	Protected Cultivation and Secondary Agriculture	1+1

## APPENDIX B

### Detail Syllabus of B. Tech. (AIT)

AGRI 111      **Fundamentals of Agronomy**

Credit hours (2+1=3)

#### **Theory**

Agronomy and its scope, seeds and sowing, tillage, land configuration and sub soiling, crop density and geometry, Crop nutrition, manures and fertilizers, nutrient use efficiency. Growth and development of crops. Agro-climatic zones of India and Gujarat. Classification of field crops and Factors affecting on crop production. Drought – definition – types of drought – effect of drought on crops – management of drought. Cropping systems – monocropping – definition and principles of crop rotation – mixed cropping – intercropping – relay cropping – multistoried cropping – sole cropping. Soil fertility and soil productivity – fertility losses – maintenance of soil fertility – soil organic matter Irrigation – Introduction, Importance, Definition and Objectives. Physical classification and Biological classification of water. Irrigation efficiency and water use efficiency, conjunctive use of water, Approaches for scheduling of irrigation; Methods of irrigation including micro irrigation system. Quality of irrigation water, water logging. Weeds: definition, classification and characteristics

#### **Practical:**

1. Identification of crops, seeds, fertilizers, pesticides and tillage implements,
2. Lay out and types of seed bed preparation.
3. Practice of different methods of sowing
4. Study of yield contributing characters and yield estimation of major crops,
5. Seed germination and viability test,
5. Numerical exercises on plant population and seed rate.
6. Use of tillage implements-reversible plough, one way plough, harrow, leveler,
7. Study of sowing implements/equipment.
8. Measurement of field capacity, bulk density and infiltration rate
9. Field layout of various irrigation methods
10. To work out the labour unit and unit of work for various field operations

**APPENDIX C**

**Semester wise Course Distribution**

Sr. No.	Course No.	Course Title	Credit
<b>First Semester</b>			
1	AGRI 111	Fundamentals of Agronomy	2+1
2	AGRI 112	Introductory Botany	2+1
3	MATH 111	Elementary Mathematics	2+0
4	PHY 111	Fundamentals of Physics	1+1
<b>Second Semester</b>			
5	AGRI 121	Environmental studies and Disaster Management	2+1
6	AGRI 122	Crop Production Technology ( <i>Kharif and Rabi</i> Crops)	2+1
7	AGRI 123	Production Technology for Fruit and Plantation Crops	1+1
8	AGRI 124	Fundamentals of Plant Pathology	1+1
<b>Third Semester</b>			
9	AGRI 211	Entrepreneurship Studies and Business Communication	2+1
10	AGRI 212	Fundamentals of Agricultural Economics	2+0
11	AGRI 213	Fundamentals of Soil Science	2+1
12	STAT 211	Agricultural Statistics - I	2+1
<b>Fourth Semester</b>			
13	AGRI 221	Introductory Biotechnology	1+1
14	AGRI 222	Introductory Agro Meteorology and Climate Change	1+1
15	AGRI 223	Fundamentals of Agricultural Extension Education	2+1
16	STAT 221	Agricultural Statistics - II	2+1
<b>Fifth Semester</b>			
17	AGRI 311	GIS and Remote Sensing Techniques	2+1
18	AGRI 312	Communication Skills and Personality Development	2+1
<b>Sixth Semester</b>			
19	AGRI 324	Fundamentals of Entomology	2+1
<b>Elective - II</b>			
1	AGRI 313	Fundamentals of Crop Physiology	2+1
2	AGRI 313	Fundamentals of Genetics	2+1
<b>Elective - III</b>			
1	AGRI 314	Farm Machinery and Power	1+1
2	AGRI 314	Basic Instrumentation and their Application in Automation	1+1
<b>Elective - IV</b>			
1	AGRI 321	Crop Simulation Models	2+1
<b>Elective - V</b>			
1	AGRI 322	Agricultural Marketing, Trade and Prices	2+1
<b>Elective - VI</b>			
1	AGRI 323	Protected Cultivation and Secondary Agriculture	1+1