# B.Sc. (Hons.) Agriculture

**As per ICAR Sixth Deans' Committee Proposed Syllabus**

***School of Smart Agriculture***

## *Adamas University*

**Program Code: AGR3401 | Duration: 04 Years**

## Semester-wise Course Structure (Semesters I–VIII)

### Semester I

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Deeksharambh (Induction cum Foundation Course) : 2 weeks | 2 (0+2) NG |
| 2 | | Rural Sociology and Educational Psychology | 2 (2+0) |
| 3 | | Fundamentals of Agronomy | 3 (2+1) |
| 4 | | Fundamentals of Soil Science | 3 (2+1) |
| 5 | | Fundamentals of Horticulture | 3 (2+1) |
| 6 | | Farming-based Livelihood Systems | 3 (2+1) |
| 7 | | Biofertilizer and Biopesticide Production | 2 (0+2) |
| 8 | | Mushroom Production Technology | 2 (0+2) |
| 9 | | Communication Skills | 2 (1+1) |
| 10 | | National Service Scheme (NSS-I) / National Cadet Corps (NCC-I) | 1 (0+1) |
| 11 | | Introductory Mathematics / Basic Biology (need-based) | 1 (1+0) NG |
| 12 | | AI for Science | 2(2+0) |
| 13 | | Foreign Language - I ( French/German/Spanish) | 2(2+0) |
| | | Soft Skills CLL -1 | 2(2+0) |

### Semester II

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Soil Fertility Management | 3 (2+1) |
| 2 | | Fundamentals of Entomology | 3 (2+1) |
| 3 | | Livestock and Poultry Management | 2 (1+1) |
| 4 | | Fundamentals of Plant Pathology | 3 (2+1) |
| 5 | | Environmental Studies and Disaster Management | 3 (2+1) |
| 6 | | Seed Production Technology | 2 (0+2) |
| 7 | | Beneficial Insect Farming | 2 (0+2) |
| 8 | | Personality Development | 2 (1+1) |
| 9 | | National Cadet Corps (NCC-II) / National Service Scheme (NSS-II) | 1 (0+1) |
| 10 | | Foreign Language - II ( French/German/Spanish) | 2(2+0) |
| | | Soft Skills CLL -II | 2(2+0) |

**Semester III**

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Principles of Genetics | 3 (2+1) |
| 2 | | Crop Production Technology-I (Kharif Crops) | 3 (1+2) |
| 3 | | Principles and Practices of Natural Farming | 2 (1+1) |
| 4 | | Production Technology of Fruit and Plantation Crops | 2 (1+1) |
| 5 | | Fundamentals of Extension Education | 2 (1+1) |
| 6 | | Fundamentals of Nematology | 2 (1+1) |
| 7 | | Horticulture Nursery Management | 2 (0+2) |
| 8 | | Entrepreneurship Development and Business Communication | 3 (2+1) |
| 9 | | Physical Education, First Aid, Yoga Practices and Meditation | 2 (0+2) |
| 10 | | Soft Skills CLL- III | 2(2+0) |

**Semester IV**

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Production Technology of Vegetables and Spices | 2 (1+1) |
| 2 | | Principles of Agricultural Economics and Farm Management | 2 (2+0) |
| 3 | | Crop Production Technology-II (Rabi Crops) | 3 (1+2) |
| 4 | | Water Management | 2 (1+1) |
| 5 | | Problematic Soils and their Management | 2 (1+1) |
| 6 | | Basics of Plant Breeding | 3 (2+1) |
| 7 | | Farm Machinery and Power | 2 (1+1) |
| 8 | | Commercial Horticulture | 2 (0+2) |
| 9 | | Agricultural Informatics and Artificial Intelligence | 3 (2+1) |
| 10 | | Soft Skills CLL -IV | 2(2+0) |

**Semester V**

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Agricultural Marketing and Trade | 3 (2+1) |
| 2 | | Introduction to Agro-meteorology | 2 (1+1) |
| 3 | | Fundamentals of Crop Physiology | 3 (2+1) |
| 4 | | Pest Management in Crops and Stored Grains | 3 (2+1) |
| 5 | | Diseases of Field and Horticultural Crops and their Management | 3 (2+1) |
| 6 | | Crop Improvement (Kharif Crops) – I | 2 (1+1) |
| 7 | | Ornamental Crops, MAPs and Landscaping | 2 (1+1) |

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 8 | | Weed Management | 2 (1+1) |
| 9 | | Introductory Agroforestry | 2 (1+1) |
| 10 | | Study Tour | 2 (0+2) NG |
| 11 | | Soft Skills CLL -V | 2(2+0) |

**Semester VI**

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Agricultural Finance and Cooperation | 2 (1+1) |
| 2 | | Crop Improvement (Rabi Crops) – II | 2 (1+1) |
| 3 | | Fundamentals of Seed Science and Technology | 2 (1+1) |
| 4 | | Renewable Energy in Agriculture and Allied Sector | 2 (1+1) |
| 5 | | Dryland Agriculture / Rainfed Agriculture and Watershed Management | 2 (1+1) |
| 6 | | Agricultural Microbiology and Phyto-remediation | 2 (1+1) |
| 7 | | Basic and Applied Agricultural Statistics | 3 (2+1) |
| 8 | | Essentials of Plant Biochemistry | 3 (2+1) |
| 9 | | Fundamentals of Agricultural Biotechnology | 3 (2+1) |
| 10 | | Soft Skills CLL -VI | 2(2+0) |

**Semester VII**

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Agri-Business Management | 4 (3+1) |
| 2 | | Agricultural Journalism | 4 (3+1) |
| 3 | | Landscaping | 4 (3+1) |
| 4 | | Food Safety and Standards | 4 (3+1) |
| 5 | | Hi-tech Horticulture | 4 (3+1) |
| 6 | | Protected Cultivation | 4 (3+1) |
| 7 | | Food Science and Nutrition | 4 (3+1) |
| 8 | | Post-Harvest Technology and Value Addition | 4 (3+1) |
| 9 | | Bioformulation and Nanoformulation | 4 (3+1) |
| 10 | | Biopesticides and Biofertilizers | 4 (3+1) |
| 11 | | System Simulation and Agro-advisory | 4 (3+1) |
| 12 | | Climate Resilient Agriculture | 4 (3+1) |
| 13 | | Commercial Plant Breeding | 4 (3+1) |

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 14 | | Commercial Seed Production | 4 (3+1) |
| 15 | | Biotechnology of Crop Improvement | 4 (3+1) |
| 16 | | Micro-propagation Technologies | 4 (3+1) |
| 17 | | Geoinformatics and Remote Sensing, Precision Farming | 4 (3+1) |
| 18 | | Management of Natural Resources | 4 (3+1) |
| 19 | | Agrochemicals | 4 (3+1) |
| 20 | | Principles and Practices of Organic Farming / Conservation Agriculture | 4 (3+1) |

**Semester VIII**

| Sr. | Course Code | Course Title | Credit Hrs. |
|---|---|---|---|
| 1 | | Student READY: RAWE / Industrial Attachment / Experiential Learning / Hands-on Training / Project Work / Internship | 20 (0+20) |

Total credits: (cumulative of all 8 semesters): 183, in addition to 10 credits of online courses (non-gradial), as per the ICAR Sixth Deans' Committee.