

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

**DURATION: 8 SEMESTERS (4 YEARS) ELIGIBILITY: 12<sup>TH</sup> WITH (PCB)/ (PCM)/ AGRICULTURE STREAM**

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE 1st SEMESTER

| Course Details         |                    |  |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |          |          | Allotted Credits          |
|------------------------|--------------------|--|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|----------|----------|---------------------------|
| Course Code            | Course Type        | Course Title                                   | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T        | P        | Subject wise Distribution |
|                        |                    |  |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |          |          |                           |
| <b>Theory Group</b>    |                    |  |             |                                |           |                     |           |                  |           |                     |          |          |                           |
| ABAG 101               | <b>Core Course</b> | Fundamentals of Agronomy                       | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 3                   | -        | -        | 3                         |
| ABSC 101               | <b>Core Course</b> | Fundamentals of Soil Science                   | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | -        | -        | 2                         |
| ABEN 101               | <b>Core Course</b> | Fundamentals of Entomology                     | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 3                   | -        | -        | 3                         |
| ABAE 101               | <b>Core Course</b> | Soil and Water Conservation Engineering        | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | -        | -        | 1                         |
| ABHO 101               | <b>Core Course</b> | Fundamental of Horticulture                    | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | -        | -        | 1                         |
| ABEX 101               | <b>Core Course</b> | Rural Sociology & Educational Psychology       | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | -        | -        | 2                         |
| HBEN 101               | <b>Core Course</b> | Comprehension & Communication Skill in English | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | -        | -        | 1                         |
| ABPD 101               | <b>Core Course</b> | Human Value and Ethics                         | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | -        | -        | 1                         |
| <b>Practical Group</b> |                    |  |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |          |          |                           |
| ABAG 101               | <b>Practical</b>   | Fundamentals of Agronomy                       | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | -        | 1        | 1                         |
| ABSC 101               | <b>Practical</b>   | Fundamentals of Soil Science                   | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | -        | 1        | 1                         |
| ABEN 101               | <b>Practical</b>   | Fundamentals of Entomology                     | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | -        | 1        | 1                         |
| ABAE 101               | <b>Practical</b>   | Soil and Water Conservation Engineering        | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | -        | 1        | 1                         |
| ABHO 101               | <b>Practical</b>   | Fundamental of Horticulture                    | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | -        | 1        | 1                         |
| HBEN 101               | <b>Practical</b>   | Comprehension & Communication Skill in English | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | -        | 1        | 1                         |
|                        | <b>Grand Total</b> |  | <b>1150</b> |                                |           |                     |           |                  |           | <b>14</b>           | <b>-</b> | <b>6</b> | <b>20</b>                 |

**Minimum Passing Marks are equivalent to Grade D  
Major- Term End Theory Exam**

**L- Lectures T- Tutorials P- Practical**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%**

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

Duration: 8 SEMESTERS (4 Years) Eligibility: 12<sup>th</sup> With (PCB)/ (PCM)/ Agriculture Stream

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE II<sup>nd</sup> SEMESTER

| Course Details         |                    |  |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |   |   | Allocated Credits         |
|------------------------|--------------------|--|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|---|---|---------------------------|
| Course Code            | Course Type        | Course Title   | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T | P | Subject wise Distribution |
|                        |                    |  |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |   |   |                           |
| <b>Theory Group</b>    |                    |  |             |                                |           |                     |           |                  |           |                     |   |   |                           |
| ABAG 202               | <b>Core Course</b> | Farming System and Sustainable Agriculture           | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABGP 201               | <b>Core Course</b> | Fundamentals of Genetics                             | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABHO 202               | <b>Core Course</b> | Production Technology for Fruit and Plantation Crops | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABSC 202               | <b>Core Course</b> | Manures, Fertilizers and Soil Fertility Management   | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABCP 201               | <b>Core Course</b> | Fundamentals of Crop Physiology                      | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPP 201               | <b>Core Course</b> | Fundamentals of Plant Pathology                      | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 3                   | - | - | 3                         |
| ABEC 201               | <b>Core Course</b> | Fundamentals of Agricultural Economics               | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABEX 202               | <b>Core Course</b> | Fundamentals of Agricultural Extension Education     | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABEN 202               | <b>Core Course</b> | Pests of Crops and Stored Grain and their Management | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| <b>Practical Group</b> |                    |  |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |   |   |                           |
| <b>ABGP 201</b>        | <b>Practical</b>   | Fundamentals of Genetics                             | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |

|                 |                    |  |             |    |   |   |   |    |   |           |          |          |           |
|-----------------|--------------------|--|-------------|----|---|---|---|----|---|-----------|----------|----------|-----------|
| <b>ABHO 202</b> | <b>Practical</b>   | Production Technology for Fruit and Plantation Crops | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1        | 1         |
| <b>ABSC 202</b> | <b>Practical</b>   | Manures, Fertilizers and Soil Fertility Management   | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1        | 1         |
| <b>ABCP 201</b> | <b>Practical</b>   | Fundamentals of Crop Physiology                      | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1        | 1         |
| <b>ABPP 201</b> | <b>Practical</b>   | Fundamentals of Plant Pathology                      | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1        | 1         |
| <b>ABEX 202</b> | <b>Practical</b>   | Fundamentals of Agricultural Extension Education     | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1        | 1         |
| <b>ABEN 202</b> | <b>Practical</b>   | Pests of Crops and Stored Grain and their Management | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1        | 1         |
|                 | <b>Grand Total</b> |  | <b>1250</b> |    |   |   |   |    |   | <b>16</b> | <b>-</b> | <b>7</b> | <b>23</b> |
|                 |                    |  |             |    |   |   |   |    |   |           |          |          |           |

**Minimum Passing Marks are equivalent to Grade D**

**L- Lectures T- Tutorials P- Practical**

**Major- Term End Theory Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%**

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

Duration: 8 SEMESTERS (4 Years) Eligibility: 12<sup>th</sup> With (PCB)/ (PCM)/ Agriculture Stream

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE IIIrd SEMESTER

| Course Details         |                    |   |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |   |   | Allocated Credits         |
|------------------------|--------------------|---|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|---|---|---------------------------|
| Course Code            | Course Type        | Course Title  | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T | P | Subject wise Distribution |
|                        |                    |   |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |   |   |                           |
| <b>Theory Group</b>    |                    |   |             |                                |           |                     |           |                  |           |                     |   |   |                           |
| ABAG 303               | <b>Core Course</b> | Crop Production Technology – I ( <i>Kharif Crop</i> ) | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPB 301               | <b>Core Course</b> | Fundamentals of Plant Breeding                        | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABHO 303               | <b>Core Course</b> | Production Technology of Vegetables and spices        | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABMB 301               | <b>Core Course</b> | Agricultural Microbiology                             | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAE 302               | <b>Core Course</b> | Farm Machinery and Power                              | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEC 302               | <b>Core Course</b> | Agricultural Finance and Cooperation                  | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABSC 301               | <b>Core Course</b> | Environmental Studies and Disaster Management         | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABST 301               | <b>Core Course</b> | Statistics Method                                     | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAH 301               | <b>Core Course</b> | Livestock and Poultry Management                      | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 3                   | - | - | 3                         |
| ABIT 301               | <b>Core Course</b> | Agricultural Informatics                              | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| <b>Practical Group</b> |                    |   |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |   |   |                           |
|                        | <b>Practical</b>   | Crop Production Technology – I ( <i>Kharif Crop</i> ) | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
|                        | <b>Practical</b>   | Fundamentals of Plant Breeding                        | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
|                        | <b>Practical</b>   | Production Technology of Vegetables and spices        | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |

|  |                    |   |             |    |   |   |   |    |   |           |          |           |           |
|--|--------------------|---|-------------|----|---|---|---|----|---|-----------|----------|-----------|-----------|
|  | <b>Practical</b>   | Agricultural Microbiology                     | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Practical</b>   | Farm Machinery and Power                      | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Practical</b>   | Agricultural Finance and cooperation          | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Practical</b>   | Environmental Studies and Disaster Management | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Practical</b>   | Statistics Method                             | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Practical</b>   | Livestock and Poultry Management              | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Practical</b>   | Agricultural Informatics                      | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|  | <b>Grand Total</b> |   | <b>1500</b> |    |   |   |   |    |   | <b>15</b> | <b>-</b> | <b>10</b> | <b>25</b> |

**Minimum Passing Marks are equivalent to Grade D**

**L- Lectures T- Tutorials P- Practical**

**Major- Term End Theory Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%**

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

Duration: 8 SEMESTERS (4 Years) Eligibility: 12<sup>th</sup> With (PCB)/ (PCM)/ Agriculture Stream

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE, IVth SEMESTER

| Course Details         |                    |   |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |   |   | Allotted Credits          |
|------------------------|--------------------|---|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|---|---|---------------------------|
| Course Code            | Course Type        | Course Title  | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T | P | Subject wise Distribution |
|                        |                    |   |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |   |   |                           |
| <b>Theory Group</b>    |                    |   |             |                                |           |                     |           |                  |           |                     |   |   |                           |
| ABBT 401               | <b>Core Course</b> | Fundamental of Plant Biochemistry and Biotechnology               | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABPB 402               | <b>Core Course</b> | Intellectual Property Rights                                      | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPB 403               | <b>Core Course</b> | Principles of Seed Technology                                     | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAE 403               | <b>Core Course</b> | Renewable Energy and Green Technology                             | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABSC 403               | <b>Core Course</b> | Problematic Soils and their Management                            | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABHO 404               | <b>Core Course</b> | Production Technology for Ornamental Crops, MAP and Land Scraping | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPD 402               | <b>Core Course</b> | Communication Skill and Personality Development                   | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAG 404               | <b>Core Course</b> | Crop Production Technology-II (Rabi crops)                        | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEL 401               | <b>Core Course</b> | Soil, Plant, Water & Seed Testing                                 | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABRM 401               | <b>Core Course</b> | Elementary Mathematics  | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| <b>Practical Group</b> |                    |   |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |   |   |                           |
| ABBT 401               | <b>Practical</b>   | Fundamental of plant Biochemistry and Biotechnology               | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
| ABPB 403               | <b>Practical</b>   | Principles of Seed Technology                                     | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 2 | 2                         |
| ABAE 403               | <b>Practical</b>   | Renewable Energy and Green Technology                             | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
| ABHO 404               | <b>Practical</b>   | Production Technology for Ornamental Crops, MAP and Land Scraping | 50          | 25                             | 8         | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |

|                      |                    |   |             |    |   |   |   |    |   |           |          |           |           |
|----------------------|--------------------|---|-------------|----|---|---|---|----|---|-----------|----------|-----------|-----------|
| ABPD 402             | <b>Practical</b>   | Communication Skill and Personality Development | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABAG 404             | <b>Practical</b>   | Crop Production Technology-II (Rabi crops)      | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABEL 401             | <b>Practical</b>   | Soil, Plant, Water & Seed Testing               | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 2         | 2         |
| NSS/NCC/<br>Ph.d1201 | <b>Practical</b>   | NSS/NCC/Physical Education & Yoga Practices     | 50          | 25 | 8 | - | - | 25 | 8 | -         | -        | 2         | 2         |
|                      | <b>Grand Total</b> |   | <b>1550</b> |    |   |   |   |    |   | <b>13</b> | <b>-</b> | <b>11</b> | <b>24</b> |

**Minimum Passing Marks are equivalent to Grade D**

**L- Lectures T- Tutorials P- Practical**

**Major- Term End Theory Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%**

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

**DURATION: 8 SEMESTERS (4 YEARS) ELIGIBILITY: 12<sup>TH</sup> WITH (PCB)/ (PCM)/ AGRICULTURE STREAM**

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE, Vth SEMESTER

| Course Details         |                    |   |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |   |   | Allotted Credits          |
|------------------------|--------------------|---|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|---|---|---------------------------|
| Course Code            | Course Type        | Course Title  | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T | P | Subject wise Distribution |
|                        |                    |   |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |   |   |                           |
| <b>Theory Group</b>    |                    |   |             |                                |           |                     |           |                  |           |                     |   |   |                           |
| ABIF-501               | <b>Core Course</b> | Introduction to Forestry  | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPP-502               | <b>Core Course</b> | Principles of Integrated Pest and Disease Management              | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABPP-503               | <b>Core Course</b> | Diseases of Field and Horticultural Crops and their Management –I | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 3                   | - | - | 3                         |
| ABPB-504               | <b>Core Course</b> | Crop Improvement-I ( <i>Kharif Crops</i> )                        | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEX-503               | <b>Core Course</b> | Entrepreneurship Development and Business Communication           | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAG-505               | <b>Core Course</b> | Geoinformatics and Nano-technology and Precision Farming          | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABRH-502               | <b>Core Course</b> | Agricultural Heritage   | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEC-503               | <b>Core Course</b> | Agriculture Marketing Trade & Prices                              | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABAG-507               | <b>Core Course</b> | Introductory Agro Meteorology & Climate Change                    | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEL-502               | <b>Core Course</b> | Hi-tech Horticulture  | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| <b>Practical Group</b> |                    |   |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |   |   |                           |
| ABIF-501               | <b>Practical</b>   | Introduction to Forestry  | 50          | 25                             | 08        | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
| ABPP-502               | <b>Practical</b>   | Principles of Integrated Pest and Disease Management              | 50          | 25                             | 08        | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
| ABPP-503               | <b>Practical</b>   | Diseases of Field and Horticultural Crops and their Management –I | 50          | 25                             | 08        | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |

|          |                    |  |             |    |    |   |   |    |   |           |          |           |           |
|----------|--------------------|--|-------------|----|----|---|---|----|---|-----------|----------|-----------|-----------|
| ABPB-504 | Practical          | Crop Improvement-I ( <i>Kharif Crops</i> )               | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABEX-503 | Practical          | Entrepreneurship Development and Business Communication  | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABAG-505 | Practical          | Geoinformatics and Nano-technology and Precision Farming | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABAG-506 | Practical          | Practical Crop Production – I ( <i>Kharif crops</i> )    | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 2         | 2         |
| ABEC-503 | Practical          | Agricultural Marketing ,Trade & Prices                   | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABAG-507 | Practical          | Introductory Agro meteorology & Climate change           | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABEL-502 | Practical          | Hi-tech Horticulture                                     | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
|          | <b>Grand Total</b> |  | <b>1500</b> |    |    |   |   |    |   | <b>14</b> | <b>-</b> | <b>11</b> | <b>25</b> |

**Minimum Passing Marks are equivalent to Grade D**

**L- Lectures T- Tutorials P- Practical**

**Major- Term End Theory Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%**

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

Duration: 8 SEMESTERS (4 Years) Eligibility: 12<sup>th</sup> With (PCB)/ (PCM)/ Agriculture Stream

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE, VIth SEMESTER

| Course Details         |                        |   |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |   |   | Allotted Credits          |
|------------------------|------------------------|---|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|---|---|---------------------------|
| Course Code            | Course Type            | Course Title  | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T | P | Subject wise Distribution |
|                        |                        |   |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |   |   |                           |
| <b>Theory Group</b>    |                        |   |             |                                |           |                     |           |                  |           |                     |   |   |                           |
| ABAG-608               | <b>Core Course</b>     | Rain fed Agriculture & Watershed Management                         | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAE-604               | <b>Core Course</b>     | Protected Cultivation and Secondary Agriculture                     | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPP-603               | <b>Core Course</b>     | Diseases of Field and Horticultural Crops and their Management-II   | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABHO-605               | <b>Core Course</b>     | Post-harvest Management and Value Addition of Fruits and Vegetables | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEN-603               | <b>Core Course</b>     | Management of Beneficial Insects                                    | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABPB-605               | <b>Core Course</b>     | Crop Improvement-II ( <i>Rabi crops</i> )                           | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABAG-610               | <b>Core Course</b>     | Principles of Organic Farming                                       | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABEC-604               | <b>Core Course</b>     | Farm Management, Production & Resource Economics                    | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 1                   | - | - | 1                         |
| ABFN-601               | <b>Core Course</b>     | Principles of Food Science and Nutrition                            | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| ABEL-603               | <b>Elective Course</b> | Agriculture waste management  | 100         | 50                             | 17        | 20                  | 08        | 30               | 12        | 2                   | - | - | 2                         |
| <b>Practical Group</b> |                        |   |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |   |   |                           |
| ABAG-608               | <b>Practical</b>       | Rain fed Agriculture & Watershed Management                         | 50          | 25                             | 08        | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
| ABAE-604               | <b>Practical</b>       | Protected Cultivation and Secondary Agriculture                     | 50          | 25                             | 08        | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |
| ABPP-603               | <b>Practical</b>       | Diseases of Field and Horticultural                                 | 50          | 25                             | 08        | -                   | -         | 25               | 8         | -                   | - | 1 | 1                         |

|          |                    | Crops and their Management-II                                       |             |    |    |   |   |    |   |           |          |           |           |
|----------|--------------------|---|-------------|----|----|---|---|----|---|-----------|----------|-----------|-----------|
| ABHO-605 | <b>Practical</b>   | Post-harvest Management and Value Addition of Fruits and Vegetables | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABEN-603 | <b>Practical</b>   | Management of Beneficial Insects                                    | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABPB-605 | <b>Practical</b>   | Crop Improvement-II ( <i>Rabi crops</i> )                           | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 2         | 2         |
| ABAG-609 | <b>Practical</b>   | Practical Crop Production –II ( <i>Rabi crops</i> )                 | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABAG-610 | <b>Practical</b>   | Principles of Organic Farming                                       | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABEC-604 | <b>Practical</b>   | Farm Management, Production & Resource Economics                    | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABEL-603 | <b>Practical</b>   | Agriculture waste management  | 50          | 25 | 08 | - | - | 25 | 8 | -         | -        | 1         | 1         |
| ABET-601 | <b>Practical</b>   | Educational Tour  |             |    |    |   |   |    |   |           |          | 2         | 2         |
|          | <b>Grand Total</b> |   | <b>1450</b> |    |    |   |   |    |   | <b>13</b> | <b>-</b> | <b>13</b> | <b>26</b> |

**Minimum Passing Marks are equivalent to Grade D**

**L- Lectures T- Tutorials P- Practical**

**Major- Term End Theory Exam**

**Minor- Pre University Test**

**Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%**

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

Duration: 8 SEMESTERS (4 Years) Eligibility: 12<sup>th</sup> With (PCB)/ (PCM)/ Agriculture Stream

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE, VIIth SEMESTER

| Course Details  |                    |  |             | External Assessment     |           | Internal Assessment |           |           |           | Credit Distribution |   |           | Allotted Credits          |
|-----------------|--------------------|--|-------------|-------------------------|-----------|---------------------|-----------|-----------|-----------|---------------------|---|-----------|---------------------------|
| Course Code     | Course Type        | Course Title   | Total Marks | Major                   |           | Minor               |           | Sessional |           | L                   | T | P         | Subject wise Distribution |
|                 |                    |  |             | Max Marks               | Min Marks | Max Marks           | Min Marks | Max Marks | Min Marks |                     |   |           |                           |
| Practical Group |                    |  |             | Term End Practical Exam |           |                     |           | Sectional |           |                     |   |           |                           |
| ABEC-705        | Practical          | Orientation and survey of village                          | 50          | 25                      | 13        | -                   | -         | 25        | 13        | -                   | - | 1         | 1                         |
| ABAG-711        | Practical          | Agronomical Interventions                                  | 100         | 50                      | 25        | -                   | -         | 50        | 25        | -                   | - | 2         | 2                         |
| ABEN-704        | Practical          | Plant Protection Interventions                             | 100         | 50                      | 25        | -                   | -         | 50        | 25        | -                   | - | 2         | 2                         |
| ABSC-704        | Practical          | Soil Improvement Interventions (Soil sampling and testing) | 100         | 50                      | 25        | -                   | -         | 50        | 25        | -                   | - | 2         | 2                         |
| ABHO-706        | Practical          | Fruits and Vegetable Production Interventions              | 100         | 50                      | 25        | -                   | -         | 50        | 25        | -                   | - | 1         | 1                         |
| ABAE-705        | Practical          | Food Processing and Storage Interventions                  | 50          | 25                      | 13        | -                   | -         | 25        | 13        | -                   | - | 2         | 2                         |
| ABAH-702        | Practical          | Animal Production Interventions                            | 100         | 50                      | 25        | -                   | -         | 50        | 25        | -                   | - | 2         | 2                         |
| ABEX-704        | Practical          | Extension and Transfer of Technology activities            | 100         | 50                      | 25        | -                   | -         | 50        | 25        | -                   | - | 2         | 2                         |
| ABAI-701        | Practical          | Agro- Industrial Attachment                                | 300         | 150                     | 75        | -                   | -         | 150       | 75        | -                   | - | 6         | 6                         |
|                 | <b>Grand Total</b> |  | <b>1000</b> |                         |           |                     |           |           |           | -                   | - | <b>20</b> | <b>20</b>                 |

Minimum Passing Marks are equivalent to Grade D

L- Lectures T- Tutorials P- Practical

Major- Term End Theory Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

# BACHELOR OF SCIENCE (HONS) AGRICULTURE

Duration: 8 SEMESTERS (4 Years) Eligibility: 12<sup>th</sup> With (PCB)/ (PCM)/ Agriculture Stream

## COURSE STRUCTURE OF B.Sc (HONS) AGRICULTURE, VIIIth SEMESTER

| Course Details         |                    |                                |             | External Assessment            |           | Internal Assessment |           |                  |           | Credit Distribution |   |           | Allotted Credits          |
|------------------------|--------------------|--------------------------------|-------------|--------------------------------|-----------|---------------------|-----------|------------------|-----------|---------------------|---|-----------|---------------------------|
| Course Code            | Course Type        | Course Title                   | Total Marks | Major                          |           | Minor               |           | Sessional        |           | L                   | T | P         | Subject wise Distribution |
|                        |                    |                                |             | Max Marks                      | Min Marks | Max Marks           | Min Marks | Max Marks        | Min Marks |                     |   |           |                           |
| <b>Practical Group</b> |                    |                                |             | <b>Term End Practical Exam</b> |           |                     |           | <b>Sectional</b> |           |                     |   |           |                           |
| SASP-801               | Practical          | Seed Production and Technology | 100         | 50                             | 17        | -                   | -         | 50               | 17        | -                   | - | 10        | 20                        |
| SAHO-801               | Practical          | Commercial Horticulture        | 100         | 50                             | 17        | -                   | -         | 50               | 17        | -                   | - | 10        | 20                        |
|                        | <b>Grand Total</b> |                                | <b>200</b>  |                                |           |                     |           |                  |           | -                   | - | <b>20</b> | <b>20</b>                 |

Minimum Passing Marks are equivalent to Grade D

L- Lectures T- Tutorials P- Practical

Major- Term End Theory Exam

Minor- Pre University Test

Sessional weightage – Attendance 50%, Three Class Tests/Assignments 50%

| VIIIth Semester (Experiential Learning Programme/ HOT) |   |                  |
|--|---|------------------|
|  | Module                                  | Credit Hr.       |
| 1  | SASP-801 Seed Production and Technology | 0+10             |
| 2  | SAHO-801 Commercial Horticulture        | 0+10             |
|  | <b>Total</b>                            | <b>20 (0+20)</b> |

| <b>Evaluation of Experiential Learning Programme/ HOT)</b> |                              |                   |
|--|------------------------------|-------------------|
| <b>S.No</b>  | <b>Parameters</b>            | <b>Max. Marks</b> |
| <b>1</b>   | Project Planning and Writing | 10                |
| <b>2</b>   | Presentation                 | 10                |
| <b>3</b>   | Regularity                   | 10                |
| <b>4</b>   | Monthly Assessment           | 10                |
| <b>5</b>   | Output delivery              | 10                |
| <b>6</b>   | Technical Skill Development  | 10                |
| <b>7</b>   | Entrepreneurship Skills      | 10                |
| <b>8</b>   | Business networking Skills   | 10                |
| <b>9</b>   | Report Writing Skills        | 10                |
| <b>10</b>  | Final Presentation           | 10                |
|  | <b>Total</b>                 | <b>100</b>        |

# Examination System

## Examination Scheme

| Subject                   | Maximum Marks Allotted |       |            |           |          |       | Duration of Examination |           |
|---------------------------|------------------------|-------|------------|-----------|----------|-------|-------------------------|-----------|
|                           | Theory                 |       |            | Practical |          | Total | Theory                  | Practical |
|                           | Major                  | Minor | Sessional. | End Sem   | Lab Work |       |                         |           |
| <b>Theory + Practical</b> | 50                     | 20    | 30         | 25        | 25       | 150   | 3hr                     | 2 hr      |
| <b>Theory</b>             | 50                     | 20    | 30         | -         | -        | 100   | 3hr                     | -         |
| <b>Practical</b>          | ...                    | ...   | ...        | 25        | 25       | 50    | -                       | 2 hr      |

## Credit Based Grading System

| Grade | % Marks range<br>(based on absolute marks) | Grade Point | Description of performance |
|-------|--|-------------|----------------------------|
| A+    | 91-100                                     | 10          | Outstanding                |
| A     | 81-90                                      | 9           | Excellent                  |
| B+    | 71-80                                      | 8           | Very Good                  |
| B     | 61-70                                      | 7           | Good                       |
| C+    | 51-60                                      | 6           | Average                    |
| C     | 41-50                                      | 5           | Satisfactory               |
| D     | 31-40                                      | 4           | Marginal                   |
| F     | 30 & below                                 | 0           | Fail                       |
| I     |  | 0           | Incomplete.                |
| W     |  | 0           | Withdrawal                 |

### DISCIPLINE-WISE SUMMARY OF CREDIT HOURS

| S.N.               | Group   | Credits  |
|--------------------|---|--|
| 1                  | Agronomy  | 21(10+11)  |
| 2                  | Genetics & Plant Breeding   | 13(7+6)  |
| 3                  | Soil Science & Agricultural Chemistry                               | 8(6+2)   |
| 4                  | Entomology  | 9(6+3)   |
| 5                  | Agricultural Economics  | 10(7+3)  |
| 6                  | Agricultural Engineering  | 8(4+4)   |
| 7                  | Plant Pathology   | 13(9+4)  |
| 8                  | Horticulture  | 10(5+5)  |
| 9                  | Food Science  | 2(2+0)   |
| 10                 | Agricultural Extension  | 9(6+3)   |
| 11                 | Biochemistry / Physiology / Microbiology/<br>Environmental Sciences | 12(7+5)  |
| 12                 | Statistics, Computer Application and I.P.R.                         | 5(3+2)   |
| 13                 | Animal Production   | 4(3+1)   |
| 14                 | English   | 2 (1+1)  |
| 15                 | Remedial Courses  | 03 (Biol/ Math); 01 (Agriculture)  |
| 16                 | NCC/NSS/Physical Education & Yoga                                   | 2(0+2)   |
| 17                 | Human Values and Ethics   | 1(1+0)   |
| 18                 | Educational Tour  | 2(0+2)   |
| <b>Total</b>       |   | 126 + 2 (for Bio / Math)/<br>01 (Agri) + 5 NC<br>126+2+1+5+ 9 credits Elective |
| <b>RAWE, ELP</b>   |   | <b>20 +20</b>  |
| <b>Grand Total</b> |   | 143+20+20=183  |

## NEW COURSES

| S.No. | Course Title   | Credit Hours |
|-------|--|--------------|
| 1.    | Geoinformatics, Nanotechnology and Precision Farming | 2(1+1)       |
| 2.    | Rainfed Agriculture and Watershed Management         | 2(1+1)       |
| 3.    | Problematic Soils and their Management               | 2(2+0)       |
| 4.    | Renewable Energy and Green Technology                | 2(1+1)       |
| 5.    | Management of Beneficial Insects                     | 2(1+1)       |
| 6.    | Fundamentals of Horticulture                         | 2(1+1)       |
| 7.    | Introduction to Forestry                             | 2(1+1)       |
| 8.    | Agricultural Informatics                             | 2(1+1)       |
| 9.    | Intellectual Property Rights                         | 1(1+0)       |
| 10.   | Principles of Food Science & Technology              | 2(2+0)       |
| 11.   | Communication Skills and Personality Development     | 2(1+1)       |
| 12.   | Principles of Integrated Pest & Diseases Management  | 3(2+1)       |
| 13.   | Agricultural Heritage                                | 1(1+0)*      |
| 14.   | Introductory Biology                                 | 2(1+1)*      |
| 15.   | Elementary Mathematics                               | 2(2+0)*      |
| 16.   | Human Values & Ethics (NG)                           | 1(1+0)**     |

\* Remedial courses\*\* Non-gradual courses

## DEPARTMENT WISE DISTRIBUTION OF COURSES

| Discipline/Course title                                 | Subject Code | Credit Hours |
|---|--------------|--------------|
| <b>Agronomy</b>   |              |              |
| Fundamentals of Agronomy                                | ABAG 101     | 4(3+1)       |
| Introductory Agro-meteorology & Climate Change          | ABAG 507     | 2(1+1)       |
| Crop Production Technology – I ( <i>Kharif crops</i> )  | ABAG 303     | 2(1+1)       |
| Crop Production Technology – II ( <i>Rabi crops</i> )   | ABAG 404     | 2(1+1)       |
| Farming System & Sustainable Agriculture                | ABAG 202     | 1(1+0)       |
| Practical Crop Production - I ( <i>Kharifcrops</i> )    | ABAG 506     | 2(0+2)       |
| Practical Crop Production - II ( <i>Rabi crops</i> )    | ABAG 609     | 2(0+2)       |
| Principles of Organic Farming                           | ABAG 610     | 2(1+1)       |
| Geoinformatics and Nanotechnology and Precision Farming | ABAG 505     | 2(1+1)       |
| Rainfed Agriculture & Watershed Management              | ABAG 608     | 2(1+1)       |
| <b>Genetics &amp; Plant Breeding</b>                    |              |              |
| Fundamentals of Genetics                                | ABGP 201     | 3(2+1)       |
| Principles of Seed Technology                           | ABPB 403     | 3(1+2)       |
| Fundamentals of Plant Breeding                          | ABPB 301     | 3(2+1)       |
| Crop Improvement-I ( <i>Kharif crops</i> )              | ABPB 504     | 2(1+1)       |
| Crop Improvement-II ( <i>Rabi crops</i> )               | ABPB 605     | 2(1+1)       |
| <b>Soil Science &amp; Agricultural Chemistry</b>        |              |              |
| Fundamentals of Soil Science                            | ABSC 101     | 3(2+1)       |
| Manures, Fertilizers and Soil Fertility Management      | ABSC 202     | 3(2+1)       |
| Problematic soils and their Management                  | ABSC 403     | 2(2+0)       |
| <b>Entomology</b>                                       |              |              |
| Fundamentals of Entomology                              | ABEN 101     | 4(3+1)       |
| Pests of Crops and Stored Grain and their Management    | ABEN 202     | 3(2+1)       |
| Management of Beneficial Insects                        | ABEN 603     | 2(1+1)       |
| <b>Agricultural Economics</b>                           |              |              |
| Fundamentals of Agricultural Economics                  | ABEC 201     | 2(2+0)       |
| Agricultural Finance and Co-Operation                   | ABEC302      | 3(2+1)       |
| Agricultural Marketing Trade & Prices                   | ABEC 503     | 3(2+1)       |
| Farm Management, Production & Resource Economics        | ABEC 604     | 2(1+1)       |
| <b>Agricultural Engineering</b>                         |              |              |
| Soil and Water Conservation Engineering                 | ABAE 101     | 2(1+1)       |
| Farm Machinery and Power                                | ABAE 302     | 2(1+1)       |
| Renewable Energy and Green Technology                   | ABAE 403     | 2(1+1)       |

|   |          |        |
|---|----------|--------|
| Protected Cultivation and Secondary Agriculture                         | ABAE 604 | 2(1+1) |
| <b>Plant Pathology</b>  |          |        |
| Fundamentals of Plant Pathology   | ABPP 201 | 4(3+1) |
| Principles of Integrated Pest and Disease Management                    | ABPP 502 | 3(2+1) |
| Diseases of Field and Horticultural Crops and their Management-I        | ABPP 503 | 3(2+1) |
| Diseases of Field and Horticultural Crops and their Management-II       | ABPP 603 | 3(2+1) |
| <b>Horticulture</b>   |          |        |
| Fundamentals of Horticulture  | ABHO 101 | 2(1+1) |
| Production Technology for Fruit and Plantation Crops                    | ABHO 202 | 2(1+1) |
| Production Technology for Vegetables and Spices                         | ABHO 303 | 2(1+1) |
| Production Technology for Ornamental Crops, MAP and Landscaping         | ABHO 404 | 2(1+1) |
| Post-harvest Management and Value Addition of Fruits and Vegetables     | ABHO 605 | 2(1+1) |
| <b>Food Science &amp; Technology</b>                                    |          |        |
| Principles of Food Science & Nutrition                                  | ABFN 601 | 2(2+0) |
| <b>Agricultural Extension and Communication</b>                         |          |        |
| Fundamentals of Agricultural Extension Education                        | ABEX 202 | 3(2+1) |
| Rural Sociology & Educational Psychology                                | ABEX 101 | 2(2+0) |
| Communication Skills and Personality Development                        | ABPD 402 | 2(1+1) |
| Entrepreneurship Development and Business Communication                 | ABEX 503 | 2(1+1) |
| <b>Biochemistry / Physiology / Microbiology/ Environmental Sciences</b> |          |        |
| Fundamentals of Plant Biochemistry and Biotechnology                    | ABBT 401 | 3(2+1) |
| Fundamentals of Crop Physiology   | ABCP 201 | 2(1+1) |
| Agricultural Microbiology   | ABMB 301 | 2(1+1) |
| Environmental Studies & Disaster Management                             | ABSC 301 | 3(2+1) |
| Introduction to Forestry  | ABIF 501 | 2(1+1) |
| <b>Statistics, Computer Application and I.P.R.</b>                      |          |        |
| Statistical Methods   | ABST 301 | 2(1+1) |
| Agri- Informatics   | ABIT 301 | 2(1+1) |
| Intellectual Property Rights  | ABPB 402 | 1(1+0) |
| <b>Animal Production</b>  |          |        |
| Livestock and Poultry Management  | ABAH 301 | 4(3+1) |
| <b>Language</b>   |          |        |
| Comprehension & Communication Skills in English                         | HBEN 101 | 2(1+1) |

|   |                      |        |
|---|----------------------|--------|
| (Gradual course)                            |                      |        |
| <b>Remedial Courses</b>                     |                      |        |
| Agricultural Heritage                       | ABRH 502             | 1(1+0) |
| Introductory Biology                        | ABIB 401             | 2(1+1) |
| Elementary Mathematics                      | ABRM 401             | 2(2+0) |
| <b>Non-Gradual Courses</b>                  |                      |        |
| NSS/NCC/Physical Education & Yoga Practices | NCC/NSS/<br>ABPE 401 | 2(0+2) |
| Human Values & Ethics                       | ABPD 101             | 1(1+0) |
| Educational Tour                            | ABET 601             | 2(0+2) |

## SEMESTER I / FIRST YEAR

| <b>Sr. No.</b>      | <b>Subject Code</b> | <b>Subject Name</b>                            | <b>Credit</b>   |
|---------------------|---------------------|--|-----------------|
| 1.                  | ABAG 101            | Fundamental of Agronomy                        | 4(3+1)          |
| 2.                  | ABSC 101            | Fundamentals of Soil Science                   | 3(2+1)          |
| 3.                  | ABEN 101            | Fundamentals of Entomology                     | 4(3+1)          |
| 4.                  | ABAE 101            | Soil and Water Conservation Engineering        | 2(1+1)          |
| 5.                  | ABHO 101            | Fundamental of Horticulture                    | 2(1+1)          |
| 6.                  | ABEX 101            | Rural Sociology & Educational Psychology       | 2(2+0)          |
| 7.                  | HBEN 101            | Comprehension & Communication Skill in English | 2(1+1)          |
| 8.                  | ABPD 101            | Human Value and Ethics                         | 1(1+0)          |
| <b>Total Credit</b> |                     |  | <b>20(14+6)</b> |

## SEMESTER II / FIRST YEAR

| <b>Sr. No.</b>       | <b>Subject Code</b> | <b>Subject Name</b>                                  | <b>Credits</b>  |
|----------------------|---------------------|--|-----------------|
| 1.                   | ABAG 202            | Farming System and Sustainable Agriculture           | 1(1+0)          |
| 2.                   | ABGP 201            | Fundamentals of Genetics                             | 3(2+1)          |
| 3.                   | ABHO 202            | Production Technology for Fruit and Plantation Crops | 2(1+1)          |
| 4.                   | ABSC 202            | Manures, Fertilizers and Soil Fertility Management   | 3(2+1)          |
| 5.                   | ABCP 201            | Fundamentals of Crop Physiology                      | 2(1+1)          |
| 6.                   | ABPP 201            | Fundamentals of Plant Pathology                      | 4 (3+1 )        |
| 7.                   | ABEC 201            | Fundamentals of Agricultural Economics               | 2(2+0)          |
| 8.                   | ABEX 202            | Fundamentals of Agricultural Extension Education     | 3(2+1)          |
| 9.                   | ABEN 202            | Pests of Crops and Stored Grain and their Management | 3(2+1)          |
| <b>Total Credits</b> |                     |  | <b>21(16+7)</b> |

## SEMESTER IV / SECOND YEAR

| Sr. No.             | Subject Code         | Subject Name   | Credit             |
|---------------------|----------------------|--|--------------------|
| 1.                  | ABBT 401             | Fundamental of plant Biochemistry and Biotechnology              | 3(2+1)             |
| 2.                  | ABPB 402             | Intellectual Property Rights                                     | 1(1+0)             |
| 3.                  | ABPB 403             | Principles of Seed Technology                                    | 3(1+2)             |
| 4.                  | ABAE 402             | Renewable Energy and Green Technology                            | 2(1+1)             |
| 5.                  | ABSC 403             | Problematic Soils and their Management                           | 2(2+0)             |
| 6.                  | ABHO 404             | Production Technology for Ornamental Crops, MAPs and Landscaping | 2 (1+1)            |
| 7.                  | ABPD 402             | Communication Skill and Personality Development                  | 2(1+1)             |
| 8.                  | ABAG 404             | Crop Production Technology-II (Rabi crops)                       | 2(1+1)             |
| 9.                  | ABEL 401             | Soil, Plant, Water & Seed Testing                                | 3(1+2)             |
| 10.                 | ABRM 401             | Elementary Mathematics   | 2(2+0)             |
| 10.                 | NCC/NSS/<br>ABPE 401 | NCC/NSS/Physical Education & Yoga Practices                      | 2(0+2)             |
| <b>Total Credit</b> |                      |  | <b>26(13+11+2)</b> |

## SEMESTER V / THIRD YEAR

| Sr. No.             | Subject Code | Subject Name  | Credits           |
|---------------------|--------------|---|-------------------|
| 1                   | ABIF-501     | Introduction to Forestry  | 2 (1+1)           |
| 2                   | ABPP-502     | Principles of Integrated Pest and Disease Management              | 3(2+1)            |
| 3                   | ABPP-503     | Diseases of Field and Horticultural Crops and their Management -I | 3 (2+1)           |
| 4                   | ABPB-504     | Crop Improvement-I ( <i>Kharif Crops</i> )                        | 2 (1+1)           |
| 5                   | ABEX-503     | Entrepreneurship Development and Business Communication           | 2 (1+1)           |
| 6                   | ABAG-505     | Geoinformatics and Nano- Technology and Precision Farming         | 2 (1+1)           |
| 7                   | ABAG-506     | Practical Crop Production – I ( <i>Kharif crops</i> )             | 2 (0+2)           |
| 8                   | ABRH-502     | Agriculture Heritage  | 1(1+0)            |
| 9                   | ABEC-503     | Agriculture Marketing Trade & Prices                              | 3(2+1)            |
| 10                  | ABAG-507     | Introductory Agro Meteorology & Climate change                    | 2(1+1)            |
| 11                  | ABEL-502     | Applied Hi-tech Horticulture                                      | 3 (2+1)           |
| <b>Total Credit</b> |              |   | <b>25 (14+11)</b> |

## SEMESTER VI / THIRD YEAR

| Sr. No. | Subject Code | Subject Name  | Credit              |
|---------|--------------|---|---------------------|
| 1.      | ABAG-608     | Rainfed Agriculture & Watershed Management                          | 2 (1+1)             |
| 2.      | ABAE-604     | Protected Cultivation and Secondary Agriculture                     | 2 (1+1)             |
| 3.      | ABPP-603     | Diseases of Field and Horticultural Crops and their Management-II   | 3 (2+1)             |
| 4.      | ABHO-605     | Post-harvest Management and Value Addition of Fruits and Vegetables | 2 (1+1)             |
| 5.      | ABEN-603     | Management of Beneficial Insects                                    | 2 (1+1)             |
| 6.      | ABPB-605     | Crop Improvement-II ( <i>Rabi Crops</i> )                           | 2 (1+1)             |
| 7.      | ABAG-609     | Practical Crop Production –II ( <i>Rabi Crops</i> )                 | 2 (0+2)             |
| 8.      | ABAG-610     | Principles of Organic Farming                                       | 2 (1+1)             |
| 9.      | ABEC-604     | Farm Management, Production & Resource Economics                    | 2 (1+1)             |
| 10.     | ABFN-601     | Principles of Food Science and Nutrition                            | 2(2+0)              |
| 11.     | ABEL-603     | Agriculture Waste Management<br>(Elective Course)                   | 3 (2+1)             |
|         |              | <b>Total</b>  | <b>24 11+ 10+3)</b> |

## SEMESTER VII / FOURTH YEAR

| S.No.                     | Rural Agricultural Work Experience and Agro Industrial Attachments (RAWE & AIA) |              |              |
|---------------------------|---|--------------|--------------|
|                           | Activities  | No. of Weeks | Credit Hours |
| 5.                        | General orientation & On campus training by different faculties                 | 1            | 14           |
| 6.                        | Village attachment/ Unit attachment in Univ./ College. KVK/ Research Station    | 8            |              |
| 7.                        | Agro-Industrial Attachment  | 10           | 06           |
| 8.                        | Project Report Preparation, Presentation and Evaluation                         | 1            |              |
| Total Weeks for RAWE& AIA |   | 20           | 20           |

### COURSE OBJECTIVES:

1. To provide an opportunity to the students to understand the rural setting in relation to agriculture and allied activities.
2. To make the students familiar with socio-economic conditions of the farmers and their problems.
3. To impart diagnostic and remedial knowledge to the students relevant to real field situations through practical training.
4. To develop communication skills in students using extension teaching methods in transfer of technology.
5. To develop confidence and competence to solve agricultural problems.
6. To acquaint students with on-going extension and rural development programmes.

**Agro- Industrial Attachment:** The students would be attached with the Agro industries for a period of 10 weeks to get an experience of the industrial environment and working.

### **RAWE Component-I**

#### **Village Attachment Training Programme**

| <b>S.No.</b> | <b>Activity</b>   | <b>Duration</b> |
|--------------|---|-----------------|
| 1.           | Orientation and Survey of Village                             | 1 Week          |
| 2.           | Agronomical Interventions                                     | 1 Week          |
| 3.           | Plant Protection Interventions                                | 1 Week          |
| 4.           | Soil Improvement Interventions<br>(Soil sampling and testing) | 1 Week          |
| 5.           | Fruit and Vegetable production interventions                  | 1 Week          |
| 6.           | Food Processing and Storage interventions                     | 1 Week          |
| 7.           | Animal Production Interventions                               | 1 Week          |
| 8.           | Extension and Transfer of Technology activities               | 1 Week          |

### **RAWE Component –II**

- Students shall be placed in Agro-and Cottage industries and Commodities Boards for 10 weeks.
- Industries include Seed/Sapling production, Pesticides-insecticides, Post harvest-processing-value addition, Agri-finance institutions, etc.

#### **Activities and Tasks during Agro-Industrial Attachment Programme**

- Acquaintance with industry and staff
- Study of structure, functioning, objective and mandates of the industry.
- Study of various processing units and hands-on trainings under supervision of industry staff.
- Ethics of industry
- Employment generated by the industry
- Contribution of the industry promoting environment
- Learning business network including outlets of the industry.
- Skill development in all crucial tasks of the industry.
- Documentation of the activities and task performed by the students.

- Performance evaluation, appraisal and ranking of students.

### Evaluation of RAWE Programme

**Attendance: Minimum attendance – 85%**

**Records:** Students would complete the record work/ report writing/ presentations, etc. based on daily field observations recorded in notebooks and weekly diaries maintained by them.

**Evaluation Procedure:** Students shall be evaluated component-wise under village attachment and agro-industrial attachment. The respective component In-Charge Instructor(s), agro- industrial official and Course Coordinator will evaluate the students as under:

| ACTIVITY                                  |  | Max. Marks |
|---|--|------------|
| <b>18. Village attachment training</b>    |  |            |
| a.  | KVK/ARS/NGO scientist                              | 50         |
| b.  | Report Preparation                                 | 10         |
| c.  | University Committee<br>(Presentation & Viva-voce) | 40         |
| <b>19. Industrial attachment training</b> |  |            |
| a.  | Industry officials                                 | 50         |
| b.  | Report Preparation                                 | 10         |
| c.  | University Committee<br>(Presentation & Viva-voce) | 40         |

**Assessment Parameters (RAWE & AIA):**

| <b>S.No.</b> | <b>Parameters</b>                 | <b>Marks (%)</b> |
|--------------|-----------------------------------|------------------|
| <b>A.</b>    | <b>Village Attachment</b>         |                  |
|              | Regularity                        | 10               |
|              | Initiative & creativity           | 10               |
|              | General conduct & discipline      | 10               |
|              | Work performance                  | 20               |
| <b>B.</b>    | <b>Industrial Attachment</b>      |                  |
|              | Initiative & compliance           | 10               |
|              | General conduct and discipline    | 10               |
|              | Project planning & implementation | 10               |
|              | Work performance                  | 20               |

**COURSE OUTCOME**

1. Knowledge of rural setting in relation to agriculture and allied activities.
2. Acquaintance of socio-economic conditions of farmers and their problems.
3. Communication skills using extension teaching methods in transfer of technology.
4. Development of confidence and competence to solve agricultural problems.

## SEMESTER VIII/ FOURTH YEAR

| <b>VIII Semester (Experiential Learning Programme/HOT)</b> |               |                   |
|--|---------------|-------------------|
|  | <b>Module</b> | <b>Credit Hr.</b> |
|  | 1. Module-I   | 0+10              |
|  | 2. Module-II  | 0+10              |
|  | <b>Total</b>  | 20 (0+20)         |

### **COURSE OBJECTIVES:**

- To promote professional skills and knowledge through meaningful hands on experience.
- To build confidence and to work in project mode.
- To acquire enterprise management capabilities

**Modules for Skill Development and Entrepreneurship:** A student has to register 20 credits opting for two modules of (0+10) credits each (total 20 credits) from the package of modules in the VIII semester.

| <b>S. No.</b> | <b>Title of Module</b>                                | <b>Credit</b> |
|---------------|---|---------------|
| 1.            | Production Technology for Bioagents and Biofertilizer | 0+10          |
| 2.            | Seed Production and Technology                        | 0+10          |
| 3.            | Mushroom Cultivation Technology                       | 0+10          |
| 4.            | Soil, Plant, Water and Seed Testing                   | 0+10          |
| 5.            | Commercial Beekeeping                                 | 0+10          |
| 6.            | Poultry Production Technology                         | 0+10          |
| 7.            | Commercial Horticulture                               | 0+10          |
| 8.            | Floriculture and Landscaping                          | 0+10          |
| 9.            | Food Processing                                       | 0+10          |
| 10.           | Agriculture Waste Management                          | 0+10          |

|     |   |      |
|-----|---|------|
| 11. | Organic Production Technology             | 0+10 |
| 12. | Commercial Sericulture                    | 0+10 |
| 13. | Sericulture                               | 0+10 |
| 14. | Nursery Management                        | 0+10 |
| 15. | Practicing Protected Horticulture         | 0+10 |
| 16. | Agro-advisory Services                    | 0+10 |
| 17. | Tissue Culture Technology                 | 0+10 |
| 18. | Food Processing and Food Safety Standards | 0+10 |
| 19. | Commercial vegetable production           | 0+10 |

#### Evaluation of Experiential Learning Programme/ HOT

| S.No. | Parameters                   | Max. marks |
|-------|------------------------------|------------|
| 1     | Project Planning and Writing | 10         |
| 2     | Presentation                 | 10         |
| 3     | Regularity                   | 10         |
| 4     | Monthly Assessment           | 10         |
| 5     | Output delivery              | 10         |
| 6     | Technical Skill Development  | 10         |
| 7     | Entrepreneurship Skills      | 10         |
| 8     | Business networking skills   | 10         |
| 9     | Report Writing Skills        | 10         |
| 10.   | Final Presentation           | 10         |
|       | <b>Total</b>                 | <b>100</b> |

## COURSE OUTCOME:

- Professional skills and knowledge..
- Confidence and working in project mode.
- Knowledge of enterprise management capabilities

## ELECTIVE COURSES:

A student can select three elective courses out of the following and offer during 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> semesters.

| S.N. | Courses                             | Credit Hours |
|------|-------------------------------------|--------------|
| 1    | Agribusiness Management             | 3(2+1)       |
| 2    | Agrochemicals                       | 3(2+1)       |
| 3    | Commercial Plant Breeding           | 3(1+2)       |
| 4    | Landscaping                         | 3(2+1)       |
| 5    | Food Safety and Standards           | 3(2+1)       |
| 6    | Biopesticides & Biofertilizers      | 3(2+1)       |
| 7    | Protected Cultivation               | 3(2+1)       |
| 8    | Micro propagation Technologies      | 3(1+2)       |
| 9    | Hi-tech. Horticulture               | 3(2+1)       |
| 10   | Weed Management                     | 3(2+1)       |
| 11   | System Simulation and Agro-advisory | 3(2+1)       |
| 12   | Agricultural Journalism             | 3(2+1)       |