

**Semester wise Courses in B.Sc.(Hons.) Agriculture
Semester I**

| | Course Code | Course Title | Credit Distribution | | | MM |
|---|------------------------------------|--|--|-----|-------|-----|
| | | | T | P | Total | 100 |
| | BSAC-101 | Fundamentals of Horticulture | 1 | 1 | 2 | 100 |
| 1. | BSAC-102 | Fundamentals of Plant Biochemistry and Biotechnology | 2 | 1 | 3 | 100 |
| 2. | BSAC-103 | Fundamentals of Soil Science | 2 | 1 | 3 | 100 |
| 3. | BSAC-104 | Introduction to Forestry | 1 | 1 | 2 | 100 |
| 4. | BSAC-105 | Comprehension & Communication Skills in English | 1 | 1 | 2 | 100 |
| 5. | BSAC-106 | Fundamentals of Agronomy | 3 | 1 | 4 | 100 |
| 6. | BSAR-107 BSAR-108 | Introductory Biology*/Elementary Mathematics* | 1/2 | 1/0 | 2/2 | 100 |
| 7. | BSAR-109 | Agricultural Heritage* | 1 | 0 | 1 | 100 |
| 8. | BSAC-110 | Rural Sociology & Educational Psychology | 2 | 0 | 2 | 100 |
| 9. | BSAN-111 | Human Values & Ethics (non gradial) | 1 | 0 | 1 | 100 |
| 10. | BSAN-112/ BSAN-113/ BSAN-114 | NSS/NCC/Physical Education & Yoga Practices** | 0 | 2 | 2 | 100 |
| Total Number of Courses C:Core Courses(07) *R:Remedial Course(02);**N:Non gradial course(02) | | | Course wise Total credits C:18, R:03, N:03=24 | | | |

Semester-II

| | Course Code | Course Title | Credit Distribution | | | MM |
|--|-------------|--------------|---------------------|---|-------|-----|
| | | | T | P | Total | 100 |
| | | | | | | |

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|---|------------------------------------|--|---|---|---|-----|
| 1. | BSAC-201 | Fundamentals of Genetics | 2 | 1 | 3 | 100 |
| 2. | BSAC-202 | Agricultural Microbiology | 1 | 1 | 2 | 100 |
| 3. | BSAC-203 | Soil and Water Conservation Engineering | 1 | 1 | 2 | 100 |
| 4. | BSAC-204 | Fundamentals of Crop Physiology | 1 | 1 | 2 | 100 |
| 5. | BSAC-205 | Fundamentals of Agricultural Economics | 2 | 0 | 2 | 100 |
| 6. | BSAC-206 | Fundamentals of Plant Pathology | 3 | 1 | 4 | 100 |
| 7. | BSAC-207 | Fundamentals of Entomology | 3 | 1 | 4 | 100 |
| 8. | BSAC-208 | Fundamentals of Agricultural Extension Education | 2 | 1 | 3 | 100 |
| 9. | BSAC-209 | Communication Skills and Personality Development | 1 | 1 | 2 | 100 |
| | BSAN-110/ BSAN-111/ BSAN-112 | NSS/NCC/Physical Education & Yoga Practices** | 0 | 2 | 2 | 100 |
| Total Number of Courses C:Core Courses(09) *R:Remedial Course(Nil);**N:Non gradial course(Nil) | | | | Course wise Total credits C:24, R:02, N:Nil=26 | | |

Semester -III

| | Course Code | Course Title | Credit Distribution | | | |
|----|-------------|--|---------------------|---|-------|-----|
| | | | T | P | Total | MM |
| 1. | BSAC-301 | Crop Production Technology – I (Kharif Crops) | 1 | 1 | 2 | 100 |
| 2. | BSAC-302 | Fundamentals of Plant Breeding | 2 | 1 | 3 | 100 |
| 3. | BSAC-303 | Agricultural Finance and Cooperation | 2 | 1 | 3 | 100 |
| 4. | BSAC-304 | Agri- Informatics | 1 | 1 | 2 | 100 |
| 5. | BSAC-305 | Farm Machinery and Power | 1 | 1 | 2 | 100 |
| 6. | BSAC-306 | Production Technology for Vegetables and Spices | 1 | 1 | 2 | 100 |
| 7. | BSAC-307 | Environmental Studies and Disaster Management | 2 | 1 | 3 | 100 |

| 8. | BSAC-308 | Statistical Methods | 1 | 1 | 2 | 100 |
|---|-------------------|---|---|---|-------|-----|
| 9. | BSAC-309 | Livestock and Poultry Management | 3 | 1 | 4 | 100 |
| Total Number of Courses C:Core Courses(09) *R:Remedial Course(Nil);**N:Non gradial course(Nil) | | | Course wise Total credits C:23, R:Nil, N:Nil | | | |
| Semester-IV | | | | | | |
| | Course Code | Course Title | Credit Distribution | | | |
| | | | T | P | Total | MM |
| 1. | BSAC-401 | Crop Production Technology –II (Rabi Crops) | 1 | 1 | 2 | 100 |
| 2. | BSAC-402 | Production Technology for Ornamental Crops, MAP and Landscaping | 1 | 1 | 2 | 100 |
| 3. | BSAC-403 | Renewable Energy and Green Technology | 1 | 1 | 2 | 100 |
| 4. | BSAC-404 | Problematic Soils and their Management | 2 | 0 | 2 | 100 |
| 5. | BSAC-405 | Production Technology for Fruit and Plantation Crops | 1 | 1 | 2 | 100 |
| 6. | BSAC-406 | Principles of Seed Technology | 2 | 1 | 3 | 100 |
| 7. | BSAC-407 | Farming System & Sustainable Agriculture | 1 | 0 | 1 | 100 |
| 8. | BSAC-408 | Agricultural Marketing Trade & Prices | 2 | 1 | 3 | 100 |
| 9. | BSAC-409 | Introductory Agro-meteorology & Climate Change | 1 | 1 | 2 | 100 |
| 10. | Given in the list | Elective Course(one course can be selected from the list of Elective Courses) | 2 | 1 | 3 | 100 |
| Total Number of Courses C:Core Courses(09) *R:Remedial Course(Nil);**N:Non gradial course(Nil); Elective Course:01 | | | Course wise Total credits C:19, R:Nil, N:Nil,E:03=22 | | | |

| Semester-V | | | | | | |
|---|-------------------|---|---|---|-------|-----|
| | Course Code | Course Title | Credit Distribution | | | |
| | | | T | P | Total | MM |
| 1. | BSAC-501 | Principles of Integrated Pest and Disease Management | 2 | 1 | 3 | 100 |
| 2. | BSAC-502 | Manures, Fertilizers and Soil Fertility Management | 2 | 1 | 3 | 100 |
| 3. | BSAC-503 | Pests of Crops and Stored Grain and their Management | 2 | 1 | 3 | 100 |
| 4. | BSAC-504 | Diseases of Field and Horticultural Crops and their Management -I | 2 | 1 | 3 | 100 |
| 5. | BSAC-505 | Crop Improvement-I (<i>Kharif Crops</i>) | 1 | 1 | 2 | 100 |
| 6. | BSAC-506 | Entrepreneurship Development and Business Communication | 1 | 1 | 2 | 100 |
| 7. | BSAC-507 | Geoinformatics and Nano-technology and Precision Farming | 1 | 1 | 2 | 100 |
| 8. | BSAC-508 | Practical Crop Production – I (<i>Kharif crops</i>) | 0 | 2 | 2 | 100 |
| 9. | BSAC-509 | Intellectual Property Rights | 1 | 0 | 1 | 100 |
| 10. | Given in the list | Elective Course(one course can be selected from the list of Elective Courses) | 2 | 1 | 3 | 100 |
| Total Number of Courses C:Core Courses(09) *R:Remedial Course(nil);**N:Non gradial course(Nil); Elective Course:01 | | | Course wise Total credits C:21, R:Nil, N:Nil,E:03=24 | | | |
| Semestee-VI | | | | | | |
| | Course Code | Course Title | Credit Distribution | | | |
| | | | T | P | Total | MM |
| 1. | BSAC-601 | Rainfed Agriculture & Watershed Management | 1 | 1 | 2 | 100 |
| 2. | BSAC-602 | Protected Cultivation and Secondary Agriculture | 1 | 1 | 2 | 100 |

| | | | | | | |
|---|-------------------|---|---|---|---|-----|
| 3. | BSAC-603 | Diseases of Field and Horticultural Crops and their Management-II | 2 | 1 | 3 | 100 |
| 4. | BSAC-604 | Post-harvest Management and Value Addition of Fruits and Vegetables | 1 | 1 | 2 | 100 |
| 5. | BSAC-605 | Management of Beneficial Insects | 1 | 1 | 2 | 100 |
| 6. | BSAC-606 | Crop Improvement-II (<i>Rabi crops</i>) | 1 | 1 | 2 | 100 |
| 7. | BSAC-607 | Practical Crop Production –II (<i>Rabi crops</i>) | 0 | 2 | 2 | 100 |
| 8. | BSAC-608 | Principles of Organic Farming | 1 | 1 | 2 | 100 |
| 9. | BSAC-609 | Farm Management, Production & Resource Economics | 1 | 1 | 2 | 100 |
| 10. | BSAC-610 | Principles of Food Science and Nutrition | 2 | 0 | 2 | 100 |
| 11. | Given in the list | Elective Course(one course can be selected from the list of Elective Courses) | 2 | 1 | 3 | 100 |
| Total Number of Courses C:Core Courses(10) *R:Remedial Course(Nil);**N:Non gradial course(Nil); Elective Course:01 | | | Course wise Total credits C:21, R:Nil, N:Nil,E:03=24 | | | |

I. Student READY (Rural and Entrepreneurship Awareness Development Yojana)

To reorient graduates of agriculture and allied subjects for ensuring and assuring employability and to develop entrepreneurs for emerging knowledge intensive agriculture, the component envisages the introduction of the program in all the agricultural universities as an essential prerequisite for the award of degree to ensure hands on experience and practical training. Considering the variation in different streams of agricultural education and feasibility, the Committee proposes to include the following five components, which are interactive and are conceptualized for building skills in project development and execution, decision-making, individual and team coordination, approach to problem solving, accounting, quality control, marketing and resolving conflicts, etc. with end to end approach in Student READY program.

- i. Experiential Learning/Hands on Training
- ii. Skill Development Training
- iii. Rural Agriculture Work Experience
- iv. In Plant Training/ Industrial attachment
- v. Students Projects

The students will be required to have any three of the five components listed above depending on the requirement of their graduate education but it should be implemented for the complete year, so that their education upto level of III year may get right information in IV year and finally they should attend right stage of entrepreneurship.

| Semester –VII | | | |
|---|--|---------------------|----------------------|
| Rural Agricultural Work Experience and Agro-industrial Attachment(RAWE &AIA) | | | |
| Course Code: | | BSAW-701 | 20(0+20) |
| SN. | Rural Agricultural Work Experience and Agro-industrial Attachment (RAWE &AIA) | | |
| | Activities | No. of weeks | Total Credits |
| 1 | General orientation & On campus training by different faculties | 1 | 10 |
| 2 | Village attachment | 4 | |
| 3 | Unit attachment in Univ./ College. KVK/ Research Station Attachment | 1 | |
| 4 | Plant clinic | 4 | |
| | Total | 10 | 10 |
| 5 | Agro-Industrial Attachment | 3 | 10 |
| 6 | Field Visit | 5 | |
| 7 | Project Report Preparation, Presentation and Evaluation | 2 | |
| Total weeks for RAWE & AIA | | 10+10=20 | 10+10=20 |

RAWE Component –II

Agro Industrial Attachment

- Students shall be placed in Agro-and Cottage industries and Commodities Boards for 03 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 pattern & distribution of Marks for RAWE & AIA:

| Type of attachment | Daily observation Notes((20) | Report Writing (20) | Presentation /Viva(20) | Written Test(20) | Regularity (20) | MM |
|--------------------|------------------------------|---------------------|------------------------|------------------|-----------------|------------|
| Village | 10 | 10 | 10. | 10 | 10 | 50 |
| Agro-Industry | 10 | 10 | 10. | 10 | 10 | 50 |
| Grand Total | | | | | | 100 |

Semester VIII

Course Code: BSAL-801

20(0+20)

Modules for Experiential Learning Programme (ELP) 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 ELP modules in the VIII Semester from the list provided below:

| Sr. | Title of the ELP module | Credits(T+P) |
|-----|---|--------------|
| 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 |

NOTE: In addition to above ELP modules other important modules may be given to the students by the University

Evaluation pattern & distribution of Marks for ELP:

| | Parameters | Max. Marks |
|--|-------------------------------------|-------------------|
| | Project Planning and Writing | 10 |
| | Presentation | 10 |
| | Regularity | 10 |
| | Monthly Assessment | 10 |
| | Output delivery | 10 |
| | Technical Skill Development | 10 |
| | Entrepreneurship Skills | 10 |
| | Business networking skills | 10 |
| | Report Writing Skills | 10 |
| | Final Presentation | 10 |
| | Total | 100 |

Elective Courses : A student can select three elective courses out of the following and offer during 4th, 5th and 6th semesters.

| S.N. | Course Code | Courses | Credit Hours |
|-------------|--------------------|--------------------------------|---------------------|
| 1. | BSAE-101 | Agribusiness Management | 3(2+1) |

| | | | |
|-----|-----------------|--|---------------|
| 2. | BSAE-102 | Agrochemicals | 3(2+1) |
| 3. | BSAE-103 | Commercial Plant Breeding | 3(1+2) |
| 4. | BSAE-104 | Landscaping | 3(2+1) |
| 5. | BSAE-105 | Food Safety and Standards | 3(2+1) |
| 6. | BSAE-106 | Biopesticides & Biofertilizers | 3(2+1) |
| 7. | BSAE-107 | Protected Cultivation | 3(2+1) |
| 8. | BSAE-108 | Micro propagation Technologies | 3(1+2) |
| 9. | BSAE-109 | Hi-tech. Horticulture | 3(2+1) |
| 10. | BSAE-110 | Weed Management | 3(2+1) |
| 11. | BSAE-111 | System Simulation and Agro-advisory | 3(2+1) |
| 12. | BSAE-112 | Agricultural Journalism | 3(2+1) |