

**OFFICE OF THE REGISTRAR
ACHARYANARENDRA DEVA UNIVERSITY OF AGRICULTURE & TECHNOLOGY
KUMARGANJ, AYODHYA**

No. ANDUAT-02/315th A.C./2024/ 2740

Dated: 13.01.2025

To,

**All Deans/Directors,
ANDUAT, Kumarganj, Ayodhya**

Sir/Madam,

Kindly find enclosed herewith the proceedings of 315th meeting of the Academic Council held on 13.01.2025 in the Hi-Tech Hall of the University Guest House for your kind perusal and necessary action.

The proceedings contain a large number of pages so it is requested to kindly inform the all HODs of your college to download the proceeding which has been uploaded on the University Website.

Encl: As above

Yours faithfully


(P.S. Pramanik)
Registrar

No. ANDUAT-02/ 315th A.C./2024/

Dated: x

Copy forwarded to the following for information and necessary action please.

1. SVC for kind information of Hon'ble Vice-Chancellor.
2. Director, Administration and Monitoring.
3. HOD, Department of Agriculture Statistics for uploading the proceeding on university website.


(P.S. Pramanik)
Registrar

Proceedings of the 315th meeting of the Academic Council held on 13.01.2025 at 11.00 AM in the Hi-tech Hall of the University Guest House.

The followings were present:

| S.No | Name | Designation | Chairman/Member |
|------|--------------------------|---------------------------------------|----------------------|
| 1. | Dr. Bijendra Singh | Vice-Chancellor | Chairman |
| 2. | Dr. Ram Batuk Singh | Director Extension | Member |
| 3. | Dr. Naveen Chandra Shahi | Dean, MCAET | Member |
| 4. | Dr. Sanjay Pathak | Dean, College of Hort. & Forestry | Member |
| 5. | Dr. Sadhna Singh | Dean, College of Comm. Science | Member |
| 6. | Dr. D.K. Singh | Assoc. Dean, College of Azamgarh | Member |
| 7. | Dr. D. Niyogi | DSW/Prof. Vety. Pathology | Member |
| 8. | Dr. C.P. Singh | Dean/Prof., Fish. Resource Management | Member |
| 9. | En. Ram Jeet Singh | HOD, FM&PE | Member |
| 10. | Dr. S.C. Vimal | Prof. & Head, GPB/BOFA, Secretary | Member |
| 11. | Dr. Susheel Kumar Singh | Prof.& Head, Plant Pathology | Member |
| 12. | Dr. A. K. Singh | DAM/Prof.& Head, Crop Physiology | Member |
| 13. | Dr. Sita Ram Mishra | Prof. & Head, Agro-Meteorology | Member |
| 14. | Dr. Anil Kumar Gangwar | Prof. & Head, Vety. Surgery | Member |
| 15. | Dr. Shushant Srivastava | Prof. & Head, VGO | Member |
| 16. | Dr. Subodh Kumar | Prof. & Head, T.L.F. | Member |
| 17. | Dr. Chandra Shekhar | Prof.& Head, VPE | Member |
| 18. | Dr. Vijay Kumar Singh | Prof. & Head, ANN | Member |
| 19. | Dr. Sonu Jaiswal | Prof. & Head, Vety. Clinical Complex | Member |
| 20. | Dr. Amit Singh | Prof. & Head, Parasitology | Member |
| 21. | Dr. Bhagwan Deen | Prof.& Head, Post Harvest | Member |
| 22. | Dr. S.P. Singh | Prof. & Head (LFC) Vet. & A.H. | Member |
| 23. | Dr. Bhanu Pratap | Prof. & Head, CHF | Member |
| 24. | Dr. V.K. Singh | HOD, Engg. College | Member |
| 25. | Dr. J.P. Singh | HOD, Vety. Science | Member |
| 26. | Dr. S.V. Singh | HOD, Vety. Science | Member |
| 27. | Dr. S.K. Maurya | HOD, Vety. Science | Member |
| 28. | Dr. S.K. Verma | Head, Agro Forestry | Member |
| 29. | Dr. S.K. Verma | Head, Floriculture & Landscaping | Member |
| 30. | Dr. Umesh Chandra | Prof. & Head, Entomology | Member |
| 31. | Dr. Suresh Kumar | Prof.,& Head Soil Science | Member |
| 32. | Dr. Neeraj Kumar | Prof. & Head, Agronomy | Member |
| 33. | Dr. N.A. Khan | Prof. & Head, Biotechnology | Member |
| 34. | Dr. P.S. Parmanik | Registrar/Dean, Vety. Sci. & A.H. | Member/ Secretary |

The Registrar/Secretary, Academic Council welcomed the Hon'ble Vice-Chancellor, Dr. Bijendra Singh and existing & new members of the Academic Council. The proceedings of the meeting began with the permission of the Hon'ble Vice-Chancellor.

The following decisions were taken:

315:1828 To confirm the minutes of the 314th meeting of the Academic Council held on 21.10.2024.

The proceedings of 314th meeting of the Academic Council held on 21.10.2024 was confirmed.

315:1829 To consider and approve the Academic Calendar of all colleges (except B.V.Sc.& A.H. and 1st year of all degree programmes) for the 2nd Semester, and M.V.Sc. IInd year, 1st semester, Session 2024-25.

The academic calendar of all colleges (except B.V.Sc.& A.H. and 1st year of all degree programmes) for the 2nd Semester, and M.V.Sc. IInd year, 1st semester, Session 2024-25 had been issued vide notice no. ANDUAT-02/Acad.C./2024/2637 dated 26.12.2024 in anticipation of approval of AC. The agenda was placed for consideration and approval of Academic Council. The Academic Council approved the agenda with suggestion to issue semester break notice for U.G. after ending of final examination.

315:1830 To consider and approve the Academic Calendar of College of Veterinary Science & Animal Husbandry of B.V.Sc.& A.H. Vth year (2020 batch) Session, 2024-25.

The academic calendar of College of Veterinary Science & Animal Husbandry of B.V.Sc.& A.H. Vth year (2020 batch) Session, 2024-25 was issued vide notice no. 403/ANDUAT-53/1/Academic Section./2024 dated 09.11.2024 in anticipation of approval of AC. The Academic Council approved the agenda as such.

315:1831 To consider and approve the model paper & format as per guidelines of Sixth Deans Committee Report of all colleges except Vety. College submitted by the committee constituted by Hon. Vice Chancellor.

The Academic Council thoroughly discussed on model paper & format. Members of Academic Council suggested that objective and subjective questions be prepared in such a manner so that answers will be delivered in maximum four sheets and extra copy will not be given to examinees. Also suggested to identify the slow learners of the class for his/her extra motivation. The format approved as such and guidelines for model paper is as under:

Points to be discussed during the Committee meeting for making a format for examinations of different degree courses of ANDUAT following VIth Deans' Committee

1. For courses having both theory and practical components, the external theory examination will be of 40 marks. This will include 40% of objective-type questions and 60% of subjective-type questions. Accordingly, the objective-type questions will be of 16 marks and subjective type questions will be of 24 marks.
2. The objective-type questions will include True/False questions (part A) and multiple-choice questions (part B) of 8 marks each. Each of the objective question carry 1.0 mark. The student will have 12 choices each for part A and part B.
3. The subjective-type questions will include 07 long answer type questions from which the student has to attend only 4 questions. Each of the subjective-type question carry 06 marks. One of the subjective type questions will be of writing short notes and have four subdivisions (a, b, c. and d) of 02 marks each from which the student has to attend any three.

4. For courses having theory component only, the external theory examination will be of 50 marks. This will include 40% of objective-type questions and 60% of subjective-type questions. Accordingly, the objective-type questions will be of 20 marks and subjective type questions will be of 30 marks. The objective-type questions will include True/False questions (part A) and multiple-choice questions (part B) of 10 marks each. Each of the objective question carry 1.0 mark. The student will have 15 choices both for part A and part B. The subjective-type questions will include 07 long answer type questions from which the student has to attend only 4 questions. Each of the subjective-type question carry 7.5 marks. One of the subjective type questions will be of writing short notes and have four subdivisions (a, b, c. and d) of 2.5 marks each from which the student has to attend any three.
5. The total duration of an end-term (theory) examination will be 2 hours and 30 minutes. The student will have to complete the objective-type questions within the first 30 minutes.
6. The proportion of objective and subjective type questions in mid-term (theory) examinations should be kept 40% and 60% respectively. The pattern of questions can be decided by the instructor of each course, depends on the nature of the course.
7. The practical examination questions should include marks for writing principle and/procedure of an experiment, practical experiment, practical record and/assignment, and viva-voce. The pattern of examination can be decided by the course instructor in due consultation with the faculty nominated by the HoD of the concerned department.
8. Each quiz examination will carry 10 marks. Assessment of the students through quizzes should focus on their critical thinking and creativity rather than rote reading. The pattern of examination can be decided by the course instructor.

315:1832 To consider and approve the proposal of Dean Hort. & Forestry to revise minor & supporting subjects for PG & Ph.D. (Hort. Fruit Science) degree programmes as per ICAR BSMA (2021).

The proposal of Dean Hort. & Forestry for revision of minor & supporting subjects for PG & Ph.D. (Hort. Fruit Science) degree programmes as per ICAR BSMA (2021) was placed for consideration and approval of Academic Council. The agenda approved with suggestion as ^a Biochemistry course be mandatory included as minor subject for PG & Ph.D. student.

315:1833 To consider and approve the rules for Ph.D. study leave to in-service issued by U.P. Gazettee dated 29 March, 2005.

The proposal for eligibility of a teacher as per rules for Ph.D. study leave issued by U.P. Gazettee dated 29 March, 2005 was placed for consideration and approval of Academic Council. The Academic Council thoroughly discussed the matter for allowing the study leave to in-service candidate with the suggestion as:

For ongoing in-service candidate;

Complete all the course work including comprehensive examination within four semester. In-service candidate will be joining in their services after completion of comprehensive examination and research work will be carried out with their regular services.

For new in-service candidates;

Their course work including comprehensive examination within 03 semester and rejoin their service in fourth semester and further continue their research work with regular service.

In-service candidate will not be allowed to guide PG students till completion of degree programme. Also suggested for MoU with Pantnagar, Meerut and Mathura universities.

315:1834 To consider and approve the proposals for implementation of course curricula submitted by all Deans as per guidelines of Sixth Deans Committee Report of ICAR.



The proposal for implementation of course curricula submitted by all Deans (except Vety. College) as per guidelines of Sixth Deans Committee Report was placed for consideration and approval of Academic Council. Hon. Vice Chancellor has directed to Registrar to hold a meeting with all Deans for similarity of course code of each colleges and be incorporated in proceedings. Course code may be in three digit except in Forestry. The details of course code of concerned colleges are given below :

College of Agriculture

B.Sc. (Hons) Agriculture

Semester wise course and credits Allocation

| S. No. | Course Code | Course Title | Credit Hours | Total credit hours |
|--------------------|-------------|------------------------------------------------|-----------------------------|--------------------|
| First year | | | | |
| I Semester | | | | |
| 1. | AFC-111 | Deeksharambh (Induction cum Foundation course) | 2 weeks (NG) Non-gradial | |
| 2. | ASE-111 | Biofertilizer and biopesticide production* | 2(0+2) | |
| 3. | APS-112 | Mushroom production technology* | 2(0+2) | |
| 4. | AAE-111 | Communication Skills | 2(1+1) | |
| 5. | AAM-112 | Farming based livelihood systems | 3(2+1) | |
| 6. | AEE-112 | Rural Sociology and Educational Psychology | 2 (2+0) | |
| 7. | AAG-111 | Fundamentals of Agronomy | 3(2+1) | |
| 8. | ASS-111 | Fundamentals of Soil Science | 3(2+1) | |
| 9. | AHC-111 | Fundamentals of Horticulture | 3(2+1) | |
| 10. | NPA-111 | National Service Scheme/National Cadet Corps | 1(0+1) | |
| 11. | AST-111 | Introductory mathematics (need based) | 1(1+0) Non-gradial | 21(11+10) |
| II Semester | | | | |
| 1. | ASC-121 | Seed Production Technology* | 2(0+2) | |
| 2. | AHE-122 | Post harvest processing technology* | 2(0+2) | |
| 3. | AAE-121 | Personality Development | 2(1+1) | |
| 4. | AMV-121 | Environmental Studies and Disaster Management | 3(2+1) | |
| 5. | ASS-121 | Soil Fertility Management | 3(2+1) | |
| 6. | AET-121 | Fundamentals of Entomology | 3(2+1) | |
| 7. | ALM-121 | Livestock and Poultry Management | 2(1+1) | |

| | | | | |
|---------------------|----------|--------------------------------------------------------------|---------|------------------|
| 8. | APP-121 | Fundamentals of Plant Pathology | 3(2+1) | |
| 9. | NPA-121 | National Service Scheme/National Cadet Corps | 1(0+1) | 21(10+11) |
| Second Year | | | | |
| III Semester | | | | |
| 1. | AET-211 | Beneficial insect farming* | 2(0+2) | |
| 2. | AEM-211 | Entrepreneurship Development and Business Communication | 3 (2+1) | |
| 3. | NPA-211 | Physical Education, First Aid, Yoga Practices and Meditation | 2(0+2) | |
| 4. | AGP-211 | Principles of Genetics | 3(2+1) | |
| 5. | AAG-211 | Crop Production Technology-I (Kharif crops) | 3(1+2) | |
| 6. | AHC-211 | Production Technology of Fruit and Plantation Crops | 2 (1+1) | |
| 7. | AEE-211 | Fundamentals of Extension Education | 2(1+1) | |
| 8. | APP- 211 | Fundamentals of Nematology | 2(1+1) | |
| 9. | AAG-212 | Principles and Practices of Natural Farming | 2(1+1) | 21(9+12) |
| IV Semester | | | | |
| 1. | AHS-221 | Horticulture nursery management* | 2(0+2) | |
| 2. | ASTV-221 | Agricultural Informatics and Artificial Intelligence | 3(2+1) | |
| 3. | AHC-221 | Production Technology of Vegetables and Spices | 2(1+1) | |
| 4. | AAE-221 | Principles of Agricultural Economics and Farm Management | 2(2+0) | |
| 5. | AAG-221 | Crop Production Technology-II (Rabi Crops) | 3(1+2) | |
| 6. | AEN-221 | Farm Machinery and Power | 2 (1+1) | |
| 7. | AAG-222 | Water Management | 2 (1+1) | |
| 8. | ASS- 221 | Problematic Soils and their management | 2(1+1) | |
| 9. | AGP-221 | Basics of Plant Breeding | 3(2+1) | 21(11+10) |

| Third Year | | | | |
|--------------|---------|------------------------------------------------------------------|------------------------|-----------------|
| V Semester | | | | |
| 1. | AEM-311 | Agricultural Marketing and Trade | 3 (2+1) | |
| 2. | AAM-311 | Introduction to Agro-meteorology | 2(1+1) | |
| 3. | APH-311 | Fundamentals of Crop Physiology | 3(2+1) | |
| 4. | AET-311 | Pest management in Crops and Stored Grains | 3 (2+1) | |
| 5. | APP-311 | Diseases of Field & Horticultural Crops & their Management | 3(2+1) | |
| 6. | AGP-311 | Crop Improvement (kharif crops) - I | 2 (1+1) | |
| 7. | AAG-311 | Weed Management | 2(1+1) | |
| 8. | AHC-311 | Ornamental Crops, MAPs and Landscaping | 2 (1+1) | |
| 9. | AFR-311 | Introductory Agro forestry | 2 (1+1) | |
| 10. | ATN-311 | Study Tour | 2 (0+2) Non gradial | 22(13+9) |
| VI Semester | | | | |
| 1. | ABT-321 | Fundamentals of Agri Biotechnology | 3(2+1) | |
| 2. | AST-321 | Basic and Applied Agril Statistics | 3(2+1) | |
| 3. | AGP-321 | Crop Improvement (Rabi crops) - II | 2(1+1) | |
| 4. | AEN-321 | Renewable energy in Agriculture and Allied Sector | 2(1+1) | |
| 5. | AAG-321 | Dryland agriculture/Rainfed agriculture and watershed management | 2(1+1) | |
| 6. | APP-321 | Agricultural Microbiology and Phyto-remediation | 2(1+1) | |
| 7. | AAE-321 | Agricultural Finance & Cooperation | 2(1+1) | |
| 8. | ABC-321 | Essentials of Plant Biochemistry | 3 (2+1) | |
| 9. | ASC-321 | Fundamentals of Seed Science & Technology | 2(1+1) | 21(12+9) |
| Fourth Year | | | | |
| VII Semester | | | | |

| 5 Elective Courses (major or minor) each of 4 (3+1) credits for B.Sc. (Hons) Agriculture degree | | | | 20(15+5) |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------|------------------------------------------------|
| 1. | ABM-411 | Agri-Business Management | 4 (3+1) | 20*(15+5) 5* Elective Courses |
| 2. | AAG-411 | Management of natural resources | 4 (3+1) | |
| 3. | AAG-412 | Agrochemicals | 4 (3+1) | |
| 4. | AEE-411 | Agricultural Journalism | 4 (3+1) | |
| 5. | AHC-411 | Landscaping | 4 (3+1) | |
| 6. | AGP-411 | Commercial Plant breeding | 4 (3+1) | |
| 7. | AFN-411 | Food safety and standards | 4 (3+1) | |
| 8. | ABT-411 | Bioformulation and Nano formulation | 4 (3+1) | |
| 9. | AET-411 | Biopesticides and Biofertilizers | 4 (3+1) | |
| 10. | AAM-411 | System Simulation and Agro advisory | 4 (3+1) | |
| 11. | AHC-412 | Hi-tech Horticulture | 4 (3+1) | |
| 12. | AHC-413 | Protected cultivation | 4 (3+1) | |
| 13. | AAM-412 | Climate Resilient Agriculture | 4 (3+1) | |
| 14. | ABT- 412 | Biotechnology of Crop Improvement | 4 (3+1) | |
| 15. | AAM-413 | Geoinformatics and Remote Sensing, precision farming | 4 (3+1) | |
| 16. | ABT-413 | Micro-propagation Technologies | 4 (3+1) | |
| 17. | ASC-411 | Commercial Seed Production | 4 (3+1) | |
| 18. | AAG-413 | Principles and Practices of Organic Farming/ Conservation Agriculture | 4 (3+1) | |
| 19. | AFN-412 | Food Science and Nutrition | 4 (3+1) | |
| 20. | AHC-414 | Post-Harvest Technology and Value Addition | 4 (3+1) | |
| VIII Semester | | | | |
| 21. | For B.Sc. (Hons)Agriculture Degree Student READY: RAWE/ Industrial Attachment /Experiential Learning / Hands-on Training/ Project Work / Internship | | | |
| 1. | RAWE - 411 | RAWE | 10 (0+10) | |
| 2. | ELP-411 | Experiential Learning | 10 (0+10) | 20(0+20) |

B.Tech. (Biotechnology)
Four-Year B. Tech. Biotechnology
Semester-Wise Course Distribution

| Sl. No. | Course Code | Course Title | Credit Hours | Total Credit hours |
|---------------------|---------------------------------|-------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------|
| First Year | | | | |
| Semester I | | | | |
| 1. | BNG-111 | Deeksharambh (Foundation Course) | 2 (0+2) NG Non-gradial | 21 (14+7)+2 NG/or 23 (16+7)+2 NG |
| 2. | BMB-111 | Molecular Biology | 3 (3+0) | |
| 3. | BCB-112 | Introductory Cell Biology | 3 (3+0) | |
| 4. | BFG-113 | Fundamentals of Genetics | 3 (3+0) | |
| 5. | BBM-111/ BBB-112/ BBZ-113 | Basic Mathematics/Basic Botany/Basic Zoology | 2 (2+0) | |
| 6. | BFL-111 | Farming Based Livelihood Systems | 3 (2+1) | |
| 7. | BNC-111/ BNS-112 | National Cadet Corps I/ National Service Scheme I | 1 (0+1) | |
| 8. | BCS-113 | Communication Skills | 2 (1+1) | |
| 9. | BPP-111/BPA-112 | SEC 1: Practices in Plant Tissue Culture*/ Practices in Animal Cell Culture** | 2 (0+2) | |
| 10. | BLM-113 | SEC 2: Laboratory Management and Instrumentation | 2 (0+2) | |
| Semester II | | | | |
| 1. | BIB-121 | Introduction to Biotechnology | 3 (3+0) | 21 (11+10) |
| 2. | BIP-122 | Introduction to Plant Breeding | 3 (2+1) | |
| 3. | BEM-123 | Elementary Microbiology | 2 (1+1) | |
| 4. | BED-121 | Entrepreneurship Development and Business Management | 3 (2+1) | |
| 5. | BES-121 | Environmental Studies and Disaster Management | 3 (2+1) | |
| 6. | BNC-121/ BNS-122 | National Cadet Corps II*/ National Service Scheme II** | 1 (0+1) | |
| 7. | BPD-123 | Personality Development | 2 (1+1) | |
| 8. | BBT-121 | SEC 3: Basic Techniques of Molecular Biology and Biotechnology | 2 (0+2) | |
| 9. | BBB-122 | SEC 4: Bioinformatics and Biocomputation | 2 (0+2) | |
| Second Year | | | | |
| Semester III | | | | |
| 1. | BLP-211 | Livestock Production and Management | 3 (2+1) | 20 (12+8) |
| 2. | BRD-212 | Recombinant DNA Technology | 2 (2+0) | |

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|--------------------|----------------------|-----------------------------------------------------------------|------------|------------------------------------------|
| 3. | BCM-213 | Classical and Molecular Cytogenetics | 3 (2+1) | |
| 4. | BPP-211/ BAP-212/ | Plant Physiology*/Anatomy and Physiology of Livestock** | 3 (2+1) | |
| 5. | BFC-213/ BLP-214 | Fundamentals of Crop Protection*/Livestock Product Technology** | 3 (2+1) | |
| 6. | BBM-215 | Biomathematics | 2 (2+0) | |
| 7. | BPE-211 | Physical Education, First Aid and Yoga Practice | 2 (0+2) | |
| 8. | BMR-211 | SEC 5: Methods in Recombinant DNA Technology | 2 (0+2) | |
| Semester IV | | | | |
| 1. | BIB-221 | Introductory Bioinformatics | 4 (3+1) | 21 (15+6) |
| 2. | BMM-221 | Molecular Marker Technology | 2 (2+0) | |
| 3. | BBC-221 | Biodiversity and Its Conservation | 2 (2+0) | |
| 4. | BBB-221 | Basic Biochemistry | 4 (3+1) | |
| 5. | BMI-221 | Human Ethics | 1 (1+0) | |
| 6. | BAM-221 | Agriculture Marketing and Trade | 3 (2+1) | |
| 7. | BAI-221 | Agriculture Informatics and Artificial Intelligence | 3 (2+1) | |
| 8. | BPM-221 | SEC 6: Practices in Molecular Marker Technology | 2 (0+2) | |
| Third Year | | | | |
| Semester V | | | | |
| 1. | BMG-311 | Microbial Genetics | 4 (3+1) | 23 (18+5)+2 (Non-gradial) |
| 2. | BMG-312 | Molecular Genetics | 3(3+0) | |
| 3. | BNB-313 | Nanobiotechnology | 4 (3+1) | |
| 4. | BAB-314 | Animal Biotechnology | 3 (2+1) | |
| 5. | BGP-315 | Genomics and Proteomics | 3 (3+0) | |
| 6. | BEE-311 | Enzymology and Enzyme Technologies | 3 (2+1) | |
| 7. | BIM-312 | Immunology | 3 (2+1) | |
| 8. | BET-311 | Educational Tour | 2 (0+2) NG | |
| Semester VI | | | | |
| 1. | BMD-321 | Molecular Diagnostics | 3 (2+1) | 20 (15+5) |
| 2. | BIB-322 | Industrial Biotechnology | 3 (3+0) | |
| 3. | BEG-323 | Epigenetics and Gene Regulation | 2 (2+0) | |
| 4. | BIB-324 | IPR, Biosafety and Bioethics | 2 (2+0) | |

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|----------------------------------------------------------------|---------|-----------------------------------------------------------|---------|----------------------|
| 5. | BCM-321 | Computational Biology | 3 (2+1) | |
| 6. | BIB-322 | Introduction to Animal Breeding | 3 (2+1) | |
| 7. | BBS-323 | Biostatistics | 2 (1+1) | |
| 8. | BFS-324 | Food Science and Processing | 3 (2+1) | |
| Fourth Year | | | | |
| Semester VII | | | | |
| Elective I. Plant Biotechnology | | | | |
| 1. | BPB-411 | Applications of Genomics and Proteomics | 4 (3+1) | 20 (14+6) |
| 2. | BPB-412 | Principles of Molecular Breeding | 4 (3+1) | |
| 3. | BPB-413 | Principles and Procedures of Plant Tissue Culture | 3 (2+1) | |
| 4. | BPB-414 | Molecular Breeding in Field and Horticultural Crops | 3 (2+1) | |
| 5. | BPB-415 | Seed Biology, Biotechnology, Production and Management | 3 (2+1) | |
| 6. | BPB-416 | Plant Genetic Transformation | 3 (2+1) | |
| Elective II. Animal Biotechnology | | | | |
| 1. | BAB-411 | Principles and Procedures of Animal Cell Culture | 4 (3+1) | 20 (15+5) |
| 2. | BAB-412 | Animal Genomics | 4 (3+1) | |
| 3. | BAB-413 | Transgenic Animal Production | 3 (3+0) | |
| 4. | BAB-414 | Molecular Virology and Vaccine Production | 3 (2+1) | |
| 5. | BAB-415 | Embryo Transfer Technologies | 3 (2+1) | |
| 6. | BAB-416 | Animal Reproductive Biotechnology | 3 (2+1) | |
| Elective III. Microbial and Environmental Biotechnology | | | | |
| 1. | BME-411 | Fundamentals of Molecular Pharming and Biopharmaceuticals | 4 (3+1) | 20 (16+4) |
| 2. | BME-412 | Microbial Biotechnology | 4 (3+1) | |
| 3. | BME-413 | Bioprospecting of Genes and Molecules | 3 (3+0) | |
| 4. | BME-414 | Molecular Ecology and Evolution | 3 (3+0) | |
| 5. | BME-415 | Food Biotechnology | 3 (2+1) | |
| 6. | BME-416 | Green Biotechnology | 3 (2+1) | |
| Elective IV. Bioinformatics | | | | |
| 1. | BBI-411 | Programming in Bioinformatics | 4 (2+2) | 20 (13+7) |
| 2. | BBI-412 | Bioinformatics Tools and Biological Databases | 3 (2+1) | |
| 3. | BBI-413 | Structural Bioinformatics | 3 (2+1) | |
| 4. | BBI-414 | Pharmacogenomics | 3 (2+1) | |

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|---------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|
| 5. | BBI-415 | Metabolomics and Systems Biology | 4 (3+1) | |
| 6. | BBI-416 | Computational Methods for Data Analysis | 3 (2+1) | |
| Semester VIII | | | | |
| 1. | BSR-421 | Student READY RAWE/industry attachment/experiential learning/ hands-on training/project work/internship) in the areas of Plant Biotechnology, Animal Biotechnology, Microbial and Environmental Biotechnology and Bioinformatics | 20 (0+20) | 20 (0+20) |
| Online Course during third and fourth year | | | | |
| | MOOCs/Online Courses | | 10 (0+10) | 10 (0+10) |

College of Horticulture & Forestry

B.Sc. (Hons) Horticulture

1st Year: Semester-I

| Course No. | Course Name | CreditHours |
|------------|------------------------------------------------------------------------|------------------------------------|
| HFC-111 | Deeksharambh(InductioncumFoundationCourse) | 2(0+2)NG Non-gradial |
| HFS-111 | Fundamentals of Horticulture | 3(2+1) |
| HFS-112 | Plant Propagation and Nursery Management of Fruit and Plantation crops | 3(1+2) |
| HFLS-111 | Commercial production of Flower crops | 3(1+2) |
| HMD-111 | Farming Based Livelihood Systems | 3(2+1) |
| HFS-113 | Sprinkler and Microirrigation systems | 2(1+1) |
| HAE-111 | Communication Skills | 2(1+1) |
| HSE-111 | Mushroom Cultivation (SEC-I)* | 2(0+2) |
| HSE-112 | Apiculture (SEC-I)* | 2(0+2) |
| HSE-113 | Orchard Floor Management (SEC-I)* | 2(0+2) |
| HSE-114 | Landscape Gardening (SEC-I)* | 2(0+2) |
| NAE-112 | NCC-I/NSS-I | 1(0+1) |
| | Total | 25 (8+17) + 2 (Non-gradial) |

*Note: Student can choose any two courses from the offered SEC-I

1st Year: Semester-II

| Course No. | Course Name | CreditHours |
|------------|-------------------------------------------------------------------------------------|-------------|
| HAGR-121 | Introduction to Major Field crops | 3(2+1) |
| HVS-121 | Commercial Production of Spices and Plantation crops | 3(2+1) |
| HVS-122 | Plant Propagation and Nursery Management in Vegetables, Flowers and Medicinal crops | 3(1+2) |

| | | |
|-------------------------|------------------------------------------------------------------------|------------------|
| HAE-121 | PersonalityDevelopment | 2(1+1) |
| HMD-121 | EntrepreneurshipDevelopmentandBusinessManagement | 3(2+1) |
| HVA-121 | EnvironmentalStudiesandDisasterManagement | 3(2+1) |
| HSE-121 | PackingandPackagingofHorticulturalCrops (SEC-II)* | 2(0+2) |
| HSE-122 | FarmMachinery (SEC-II)* | 2(0+2) |
| HSE-123 | IntroductiontoForestry (SEC-II)* | 2(0+2) |
| HSE-124 | Installation,OperationandMaintenanceofMicro-irrigationSystem (SEC-II)* | 2(0+2) |
| NAE-121 | NCC-II/NSS-II | 1(0+1) |
| | Total | 26(10+16) |
| Post-II Semester | | |
| HINT-121 | Internship(for 10weeks-only forexitoptionforawardofUG- Certificate) | 10(0+10) |

*Note: Student can choose any two courses from the offered SEC-II

IInd Year: Semester-I

| Course No. | Course Name | CreditHours |
|------------|---------------------------------------------------------|------------------|
| HSS-211 | FundamentalsofSoilScience | 3(2+1) |
| HFS-211 | CommercialFruit Production | 4(3+1) |
| HVS-211 | PrecisionFarmingandProtectedCultivation | 3(2+1) |
| HVS-212 | SeedProductionofVegetable, TuberandSpicecrops | 3(2+1) |
| HPP-211 | DiseaseManagementofHorticulturecrops | 3(2+1) |
| HAE-211 | PhysicalEducation,FirstAid, YogaPracticesandMeditation | 2(0+2) |
| HSE-211 | ComputerProgrammingandData Structures (SEC-III)* | 2(0+2) |
| HSE-212 | TurfandTurfManagement (SEC-III)* | 2(0+2) |
| HSE-213 | Post-HarvestManagementofHorticulturalProduce (SEC-III)* | 2(0+2) |
| | Total | 24(11+13) |

*Note: Student can choose any one course from the offered SEC-II

IInd Year: Semester-II

| Semester | Course Name | CreditHours |
|----------|--------------------------------------------------|-------------|
| HVS-221 | CommercialVegetableProduction | 4(3+1) |
| HAEN-221 | FarmPowerandMachineryforHorticulture | 3(2+1) |
| HVA-221 | AgriculturalInformaticsandArtificialIntelligence | 3(2+1) |
| HVS-222 | UrbanandPeriUrbanHorticulture | 2(1+1) |
| HMD-221 | AgricultureMarketingandTrade | 3(2+1) |
| HENT-221 | PestManagementofHorticulturecrops | 3(2+1) |

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| | | |
|-------------------------|-------------------------------------------------------------------------|-------------------|
| HAGM-221 | Introductory Agrometeorology and Climate Change | 2 (1+1) |
| HSE-221 | Nursery Production in Horticulture crops (SEC-IV)* | 2 (0+2) |
| HSE-222 | Seed Production techniques in Vegetable crops (SEC-IV)* | 2 (0+2) |
| HSE-223 | Sericulture (SEC-IV)* | 2 (0+2) |
| | | 26 (13+13) |
| Post-IV semester | | |
| HINT-221 | Internship (for 10 weeks-only for exit option for award of UG- Diploma) | 10 (0+10) |
| | | |

***Note: Student can choose any one course from the offered SEC-IV**
IIInd Year: Semester-I

| Course No. | Course Name | Credit Hours |
|------------|----------------------------------------------------------|------------------------------------|
| HGPB-311 | Fundamentals of Plant Breeding | 3 (2+1) |
| HFS-311 | Growth and Development of Horticultural crops | 3 (2+1) |
| HSS-311 | Soil Fertility and Nutrient Management | 3 (2+1) |
| HSS-312 | General Microbiology | 3 (2+1) |
| HAST-311 | Information and Communication Technology in Horticulture | 3 (1+2) |
| HCP-311 | Introductory Crop Physiology | 2 (1+1) |
| HSTAT-312 | Basic Statistics and Experimental Designs | 3 (2+1) |
| HFC-311 | Education Tour | 2 (0+2) Non-gradual |
| | Total | 20 (12+8) + 2 (Non gradual) |

IIInd Year: Semester-II

| Course No. | Course Name | Credit Hours |
|------------|-----------------------------------------------------|--------------|
| HAF-321 | Introductory Agroforestry | 3 (2+1) |
| HFS-321 | Laboratory Techniques for Horticultural crops | 2 (0+2) |
| HBCH-321 | Principles of Biochemistry | 3 (2+1) |
| HFS-321 | Dryland Horticulture | 3 (2+1) |
| HAE-321 | Economics and Marketing | 3 (2+1) |
| HAGR-321 | Principles and Practices of Natural Farming | 2 (1+1) |
| HFS-322 | Horticulture Based Integrated Farming System | 3 (2+1) |
| HPM-321 | Processing and Value Addition of Horticulture crops | 3 (2+1) |
| HAF-321 | Introductory Agroforestry | 3 (2+1) |
| HFS-321 | Laboratory Techniques for Horticultural crops | 2 (0+2) |

| | | |
|----------|--------------------------|-----------------|
| HBCH-321 | PrinciplesofBiochemistry | 3(2+1) |
| | Total | 22(13+9) |

IVnd Year: Semester-I

| Course No. | Course Name | CreditHours |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------|
| ElectiveCourses-Studentswilloptoneoftheelectivedisciplineandaccordingly the courses offered by University may be taken | | |
| Fruit Science | | |
| HFS-411 | Production TechnologyofTropicalFruitcrops | 3(2+1) |
| HFS-412 | ProductionTechnologyofSubtropicalandtemperateFruitcrops | 3(2+1) |
| HFS-413 | Breedingoffruit crops | 3(2+1) |
| HFS-414 | CanopyManagementinFruitcrops | 3(2+1) |
| HFS-415 | BiotechnologicalApproachesandMicropropagationinFruitcrops | 3(2+1) |
| HFS-416 | ProductionTechnologyofAridFruitcrops | 3(2+1) |
| HFS-417 | Postharvest Management for Fruit crops | 2 (1+1) |
| | Total | 20 |
| VegetableScience | | |
| HVS-411 | ProductionTechnologyofWarmSeasonVegetablecrops | 3(2+1) |
| HVS-412 | ProductionTechnologyofCoolSeasonVegetablecrops | 3(2+1) |
| HVS-413 | ProductionTechnologyofTubercrops | 3(2+1) |
| | | |
| HVS-414 | BreedingofVegetablecrops | 3(2+1) |
| HVS-415 | BiotechnologicalapproachesandMicropropagationinVegetable crops | 3(2+1) |
| HVS-416 | PostharvestManagementofVegetablecrops | 3(2+1) |
| HVS-417 | ProtectedcultivationofVegetablecrops | 2(1+1) |
| | Total | 20 |
| FloricultureandLandscaping | | |
| HFLS-411 | TurfManagement | 2(1+1) |
| HFLS-412 | ProtectedCultivation ofFlowercrops | 3(2+1) |
| HFLS-413 | ValueAdditioninFloriculture | 3(2+1) |
| HFLS-414 | BreedingofOrnamentalcrops | 3(2+1) |
| HFLS-415 | PrinciplesofLandscapeArchitecture | 3(2+1) |
| HFLS-416 | CommercialFloricultureandLandscaping | 3(2+1) |
| HFLS-417 | PostharvesthandlingofFloriculturecrops | 3(2+1) |
| | Total | 20 |

IVth Year: Semester-II

| Semester | CourseTitle | CreditHours |
|----------|-----------------------------------------------------------------|-----------------|
| HSR-421 | StudentReady(RAWE/IndustrialAttachment/Projectwork/ Internship) | 20(0+20) |
| | Total | 20 |
| | TOTAL | 80+87+4# |
| | Grandtotal | 167+4# |

B.Sc. (Hons) Forestry**Course Curriculum of B.Sc. (Hons.) (Forestry) Degree Programme as per ICAR Sixth Dean Committee**

| Course Code | Course Title | Credit hours |
|---------------------------|--------------------------------------------------------------------------------|---------------------------------------|
| First year | | |
| Semester I | | |
| FOFC-111 | Deeksharambh(Induction-cum-Foundation Program) | 2 (0+2) (Non gradial) |
| FORM-111 | Introduction to Forest Resources | 3 (2+1) |
| FOBT-111 | Forest Plant Biology | 3 (2+1) |
| FOSA-111 | Silviculture – Principles and Practices | 3 (2+1) |
| FOSA-112 | Agroforestry Systems and Management | 3 (2+1) |
| *FOSE-111 | Commercial Seedling Production (SEC-I) | 2 (0+2) |
| *FOSE-112 | Ecotourism (SEC- I) | 2 (0+2) |
| *FOSE-113 | Forest Machine Learning Technology (SEC- I) | 2 (0+2) |
| *FOSE-114 | Commercial Forestry (SEC- I) | 2 (0+2) |
| *FOSE-115 | Landscape Management and Restoration (SEC- I) | 2 (0+2) |
| *FOSE-116 | Wildlife Photography (SEC- I) | 2 (0+2) |
| *FOSE-117 | Para-taxonomy (SEC- I) | 2 (0+2) |
| *FOSE-118 | Ornithology (SEC- I) | 2 (0+2) |
| *FOSE-119 | Herpetology (SEC- I) | 2 (0+2) |
| FOMD-111 | Farming Based Livelihood Systems | 3 (2+1) |
| NAE-111 | NCC-I/ NSS-I | 1 (0+1) |
| NAE-112 | Communication Skills | 2 (1+1) |
| | Total Credit | 22(11+11) (+2NG) |
| Semester II | | |
| FOBT-121 | Tree Seed and Nursery Technology | 3 (1+2) |
| FOBT-122 | Fundamental of Forest Genetics | 2 (1+1) |
| FOPU-121 | Wood Anatomy and Identification | 2 (1+1) |
| FORM-121 | Forest Measurements and Inventory | 3 (2+1) |
| *FOSE-121 | Clonal Seedling Production (SEC-II) | 2 (0+2) |
| *FOSE-122 | Forest Based Industrial Training (SEC-II) | 2 (0+2) |
| *FOSE-123 | Urban Forestry Designing and Planning (SEC-II) | 2 (0+2) |
| *FOSE-124 | Wood Working and Carpentry (SEC-II) | 2 (0+2) |
| *FOSE-125 | Wood Seasoning and Preservation Technology (SEC-II) | 2 (0+2) |
| *FOSE-126 | Zoo Management (SEC-II) | 2 (0+2) |
| *FOSE-127 | Wild and Commercial Beekeeping (SEC-II) | 2 (0+2) |
| *FOSE-128 | Advanced Wood Working (SEC-II) | 2 (0+2) |
| *FOSE-129 | Lac and Tassar Cultivation (SEC-II) | 2 (0+2) |
| FOVA-121 | Environmental Studies and Disaster Management | 3 (2+1) |
| NAE-121 | Personality Development | 2 (1+1) |
| NAE-122 | NCC-II/NSS-II | 1 (0+1) |
| FOMD-121 | Entrepreneurship Development and Business Development | 3 (2+1) |
| | Total Credit | 23 (10+13) |
| Post – II Semester | | |
| FOIN-121 | **Internship (for 10 weeks) - only for exit option for award of UG-Certificate | 10 (0+10) |
| | Total credit including Internship | 23 (10+13) + [10 (0+10)**] |

| Second Year | | |
|--------------------|-----------------------------------------------------------------------------|---------------------------------|
| Semester III | | |
| FOSA-211 | Silviculture of Trees | 2 (2+0) |
| FOPU-211 | Wood Science and Technology | 2 (1+1) |
| FORM-211 | Forest Microbiology | 2 (1+1) |
| FORM-212 | Forest Soil and Nutrient Management | 2 (1+1) |
| FORM-213 | Forest Survey and Engineering | 2 (1+1) |
| FOWL-211 | Wildlife Sciences | 3 (2+1) |
| FORM-214 | Forest Health and Protection | 2 (1+1) |
| FOSA-212 | Arboriculture | 2 (1+1) |
| *FOSE-211 | Multifunctional Agroforestry (SEC-III) | 2 (0+2) |
| *FOSE-212 | Timber Conversion (SEC-III) | 2 (0+2) |
| *FOSE-213 | Value Addition of NTFPs (SEC-III) | 2 (0+2) |
| *FOSE-214 | Briquetting Technology (SEC-III) | 2 (0+2) |
| *FOSE-215 | Forest Fire Management (SEC-III) | 2 (0+2) |
| *FOSE-216 | Activated Carbon Technology (SEC-III) | 2 (0+2) |
| *FOSE-217 | Micro Forest (SEC-III) | 2 (0+2) |
| *FOSE-218 | Community Forest (SEC-III) | 2 (0+2) |
| *FOSE-219 | Biofuels Technology through Forestry (SEC-III) | 2 (0+2) |
| NAE-211 | Physical Education, First Aid, Yoga practices and Meditation | 2(1+1) |
| | Total Credit | 21 (11+10) |
| Semester IV | | |
| FORM-221 | Commercial Forest Products and Utilization | 3 (2+1) |
| FORM-221 | Forest Ecology and Management | 3 (2+1) |
| FOPU-222 | Tree Harvesting and Ergonomics | 2 (1+1) |
| FORM-222 | Forest Policy and Legislation | 2 (2+0) |
| FOSE-221 | Statistical Methods | 2 (1+1) |
| *FOSE-221 | Speciality Seedling Production (SEC-IV) | 2 (0+2) |
| *FOSE-222 | Artificial Intelligence in Forestry Operation (SEC-IV) | 2 (0+2) |
| *FOSE-223 | Woodlot Establishment and Management (SEC-IV) | 2 (0+2) |
| *FOSE-224 | Application of Drone in Forestry (SEC-IV) | 2 (0+2) |
| *FOSE-225 | Forest Certification (SEC-IV) | 2 (0+2) |
| *FOSE-226 | Arboriculture (SEC-IV) | 2 (0+2) |
| *FOSE-227 | Mulberry and Non-mulberry based Silk Production (SEC-IV) | 2 (0+2) |
| *FOSE-228 | Marketing and Economics of NTFPs (SEC-IV) | 2 (0+2) |
| *FOSE-229 | Carbon Financing Projects (SEC-IV) | 2 (0+2) |
| FORMD-221 | Agricultural Marketing and Trade | 3 (2+1) |
| FOSA-221 | Agricultural Informatics and Artificial Intelligence | 3 (2+1) |
| | Total Credit | 20(12+8) |
| Post – IV Semester | | |
| FOIN-221 | ***Internship (for 10 weeks) - only for exit option for award of UG-Diploma | 10 (0+10) |
| | Total credit including Internship | 20(12+8) + [10(0+10)***] |
| Third Year | | |
| Semester V | | |
| FOPT-311 | Tree Physiology | 2 (1+1) |
| FOSA-311 | Plantation Forestry | 3 (2+1) |
| FOBI-312 | Tree Improvement | 3 (2+1) |
| FORM-311 | Forest Resource Management | 2 (1+1) |
| FOPU-311 | Non-Timber Forest Products | 3 (2+1) |
| FORM-312 | Forest Pest and Diseases | 3 (2+1) |
| FOWL-311 | Wildlife and Protected Area Management | 3 (2+1) |
| FOSA-312 | Industrial Agroforestry | 2 (1+1) |
| FOST-311 | Study tour | 2 (0+2) Non-Gradual |
| | Total Credit | 21 (13+8)+2NG |

| Semester VI | | |
|--------------|-------------------------------------------------------------------------------|------------------|
| FOBT-321 | Forest Biotechnology | 3 (2+1) |
| FORM-321 | Forest Economics and Marketing | 2 (1+1) |
| FORM-322 | Watershed Planning and Management | 2 (1+1) |
| FORM-323 | Forest Tribology, Ethno-medicine and Extension | 3 (2+1) |
| FORM-324 | Remote Sensing and GIS | 2 (1+1) |
| FORM-325 | Forest Business Management | 2 (1+1) |
| FORM-326 | Forest Landscape Restoration (FLR) | 2 (2+0) |
| FOPI-321 | Forest Biomass Energy and Biofuels | 2 (1+1) |
| FOSA-321 | Trees Outside Forests | 2 (2+0) |
| | Total Credit | 20 (13+7) |
| Fourth Year | | |
| Semester VII | | |
| | Elective Courses | |
| | ****Plantation Forestry | 20 |
| FOP-411 | Commercial Tree Seedling Production | 3 (1+2) |
| FOP-412 | Commercial Plantation Development and Management | 3 (2+1) |
| FOP-413 | Forest Growth Modelling | 2 (1+1) |
| FOP-414 | Marketing and Certification of Wood Products | 2 (1+1) |
| FOP-415 | Restoration of Degraded Lands | 3 (2+1) |
| FOP-416 | Dendro-biomass and Energy Plantations | 3 (2+1) |
| FOP-417 | Plantation and Climate Change Mitigation | 2 (2+0) |
| FDPB-411 | Plant Biochemistry | 2 (1+1) |
| FOP-418 | Research Methodology | 2 (1+1) |
| FOPS-411 | Statistical Packages for Data Analysis | 1 (0+1) |
| FOP-411 | Internship with Forest Plantations-based Institutions/plantation companies | 2 (0+2) |
| | ****Multifunctional Agroforestry | 20 |
| FOM-411 | Agroforestry system | 3 (2+1) |
| FOM-412 | Interactions in Agroforestry Systems | 2 (1+1) |
| FOM-413 | Agroforestry and Climate Change Mitigation | 2 (2+0) |
| FOM-414 | Industrial agroforestry | 3 (2+1) |
| FOM-415 | Ecotourism | 3 (2+1) |
| FOM-416 | Dendro-biomass and energy plantation | 3 (2+1) |
| FOMA-411 | Introduction to Agronomy and Crop Production Technology | 3 (2+1) |
| FOMB-411 | Plant Biochemistry | 2 (1+1) |
| FOM-417 | Research Methodology | 2 (1+1) |
| FOMS-411 | Statistical Packages for Data Analysis | 1 (0+1) |
| FOM-418 | Agroforestry Business Incubation | 2(1+1) |
| FOM-411 | Internship with agroforestry-based institutions/industries | 2 (0+2) |
| | ****High Yielding Short Rotation Forestry | 20 |
| FOH-411 | Applied Tree Improvement | 3 (2+1) |
| FOH-412 | Reproduction Biology of Tree Crops | 3 (2+1) |
| FOH-413 | Biometrical Genetics in Tree Breeding | 2 (1+1) |
| FOH-414 | Tissue Culture Application in Forestry | 3 (1+2) |
| FOH-415 | Controlled Breeding in Tree Crops | 2 (0+2) |
| FOH-416 | Tree Seed Orchards | 3 (2+1) |
| FOH-417 | Forest Genetic Resources | 2 (2+0) |
| FOH-418 | Clonal Forestry | 2 (1+1) |
| FOHB-411 | Plant Biochemistry | 2 (1+1) |
| FOH-419 | Research Methodology | 2 (1+1) |
| FOHS-411 | Statistical Packages for Data Analysis | 1 (0+1) |
| FOH-411 | Internship with tree breeding and biotechnology based institutions/industries | 2 (0+2) |

| | | |
|----------------------|------------------------------------------------------------------------------|-------------------------|
| | ***Wood and NWFPs Product Development and Utilization | 20 |
| FOU-411 | Wood Identification | 2 (0+2) |
| FOU-412 | Wood Physics and Chemistry | 3 (2+1) |
| FOU-413 | Forest Products Laboratory Techniques | 2 (0+2) |
| FOU-414 | Wood Seasoning and Preservation | 3 (1+2) |
| FOU-415 | Composite Wood Technology | 3 (2+1) |
| FOU-416 | Non-wood Forest Products and Value Addition Technology | 3 (2+1) |
| FOU-417 | Ethnobotany, Medicinal and Aromatic Plants | 3 (2+1) |
| FOU-418 | Certification of Wood Products | 2 (2+0) |
| FOUB-411 | Plant Biochemistry | 2 (1+1) |
| FOU-419 | Research Methodology | 2 (1+1) |
| FOUS-411 | Statistical Packages for Data Analysis | 1 (0+1) |
| FOU-411 | Internship with Forest Products and Technology-based Institutions/industries | 2 (0+2) |
| | ***Forest Resources Management and Utilization | 20 |
| FOR-411 | RS and GIS Applications for Forest Resource Management | 3 (2+1) |
| FOR-412 | Ecosystem Services and Valuation of Forest Resources | 3 (2+1) |
| FOR-413 | Entrepreneurship in value chain improvement of forest Resources | 3 (2+1) |
| FOR-414 | Joint Forest Planning and Management | 2 (1+1) |
| FOR-415 | Climate Change Mitigation | 3 (2+1) |
| FOR-416 | Ecotourism | 3 (2+1) |
| FOR-417 | Restoration of Degraded Lands | 3 (2+1) |
| FOR-418 | Urban Ecology and Environment | 3 (2+1) |
| FORB-411 | Plant Biochemistry | 2 (1+1) |
| FOR-419 | Research Methodology | 2 (1+1) |
| FORS-411 | Statistical Packages for Data Analysis | 1 (0+1) |
| FORI-411 | Internship with Forest Business Unit/RS-GIS Company or Organization | 2 (0+2) |
| Semester VIII | | |
| FOR-421 | Internship/Project/Students Ready Program | 20 (0+20) |
| | Total Credit | 20 (0+20) |
| | On-line courses (MOOC) | 10 |
| | Total Course Credit | 167+10(MOOC)+4NG |

*Students can choose any two courses from the offered SEC- I and SEC-II and one course from the offered SEC-III and SEC-IV

***Students can take 20 credits from any one elective courses

College of Fisheries

YEAR AND SEMESTER WISE COURSES DISTRIBUTION OF B.F.Sc. (Hons.)

Ist Year: Semester-I

| Sl. No. | Course Code | Course Title | Credit hour |
|---------|-------------|-----------------------------------------------------------|-----------------------|
| 1. | FFD-111 | Deeksharambh (Induction-cum-Foundation course of 2 weeks) | 2(0+2) ^{#NG} |
| 2. | ERC-111 | Taxonomy of Commercially Important Fish and Shellfish | 4 (2+2) |
| 3. | EAEC-111 | Soil and Water Chemistry | 3 (2+1) |
| 4. | FAC-111 | Freshwater Aquaculture | 2 (1+1) |
| 5. | FHC-111 | Fundamental Microbiology | 2 (1+1) |

| | | | |
|-----|----------|-------------------------------------------------|---------|
| 6. | FAEC-112 | Meteorology and Geography | 2 (1+1) |
| 7. | FMD-111 | Farming Based Livelihood Systems | 3 (2+1) |
| 8. | NAE-111 | Communication Skills | 2 (1+1) |
| 9. | NAE-112 | NCC-I/NSS-I | 1 (0+1) |
| 10. | FSE-111 | Fish/Shellfish Breeding and Hatchery Operation* | 2 (0+2) |
| 11. | FSE-112 | Fish/Shellfish Seed Rearing* | 2 (0+2) |

#NG- Non Gradual course.

* Courses opt from SEC

Ist Year: Semester-II

| Sl. No. | Course Code | Course Title | Credit hour |
|-----------------------------------------------------------------------------|-------------|------------------------------------------------------|-------------|
| 1. | FAC-121 | Fish and Shellfish Breeding and Hatchery Management | 4 (3+1) |
| 2. | FRC-121 | Anatomy and Biology of Finfish and Shellfish | 4 (3+1) |
| 3. | FRC-123 | Physiology of Finfish and Shellfish | 3 (2+1) |
| 4. | FAEC-121 | Limnology | 2 (1+1) |
| 5. | FMD-121 | Entrepreneurship Development and Business Management | 3 (2+1) |
| 6. | FVA-121 | Environmental Studies and Disaster Management | 3 (2+1) |
| 7. | NAE-121 | Personality Development | 2 (1+1) |
| 8. | NAE-122 | NCC-II/NSS-II | 1 (0+1) |
| 9. | FSE-121 | Fish/Shellfish Grow-out Production Management * | 2 (0+2) |
| 10. | FSE-122 | Breeding and Culture of Ornamental Fish * | 2 (0+2) |
| Post Semester-II (only for exit option for award of UG- Certificate) | | | |
| 1. | FIN-121 | Internship (for 10 weeks) | 10** (0+10) |

* Courses opt from SEC

IInd Year: Semester-I

| Sl. No. | Course Code | Course Title | Credit hour |
|---------|-------------|-------------------------------------|-------------|
| 1. | FAC-211 | Coastal Aquaculture and Mariculture | 3 (2+1) |
| 2. | FAC-212 | Fish Nutrition and Feed Technology | 3 (2+1) |
| 3. | FRC-211 | Inland Fisheries | 2 (1+1) |

| | | | |
|----|----------|-------------------------------------------------------------|---------|
| 4. | FEC-211 | Fishing Craft Technology | 2 (1+1) |
| 5. | FPC-211 | Fundamentals of Biochemistry and Food Chemistry | 2 (1+1) |
| 6. | FPC-212 | Post-Harvest Handling and Preservation | 3 (2+1) |
| 7. | FESC-211 | Fisheries Extension | 2 (1+1) |
| 8. | NAE-211 | Physical Education, First Aid, Yoga Practice and Meditation | 2 (0+2) |
| 9. | FSE-211 | Start-up and Incubation in Fisheries * | 2 (0+2) |

* Courses opt from SEC

IInd Year: Semester-II

| Sl. No. | Course Code | Course Title | Credit hour |
|-------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------|--------------|
| 1. | FAC-221 | Breeding and Culture of Ornamental Fish | 2 (1+1) |
| 2. | FAC-222 | Live Food Organisms for Fish and Shellfish | 2 (1+1) |
| 3. | FHC-221 | Fish and Shellfish Diseases and Treatment | 3 (2+1) |
| 4. | FRC-221 | Marine Fisheries | 2 (1+1) |
| 5. | FEC-221 | Fishing and Gear Technology | 3 (2+1) |
| 6. | FPC-221 | Fish Products, By-products, Value Addition and Waste Management | 3 (2+1) |
| 7. | FMD-221 | Agriculture Marketing and Trade | 3 (2+1) |
| 8. | FVA-221 | Agricultural Informatics and Artificial Intelligence | 3 (2+1) |
| 9. | FSE-221 | Non-conventional/Diversified Farming Practices (Pearl Farming/Seaweed Farming/Aquaponics/Microalgae Production, etc.)* | 2 (0+2) |
| Post Semester IV (Only for exit option for award of UG -Diploma) | | | |
| 1. | FIN-221 | Internship (for 10 weeks) | 10*** (0+10) |

* Courses opt from SEC

IIIrd Year: Semester-I

| Sl. No. | Course Code | Course Title | Credit hour |
|---------|-------------|-----------------------------------------------|-------------|
| 1. | FAC-311 | Fish Genetics and Breeding | 2 (1+1) |
| 2. | FAEC-311 | Marine Biology | 2 (1+1) |
| 3. | FRC-311 | Fish Population Dynamics and Stock Assessment | 2 (1+1) |
| 4. | FAEC-312 | Aquatic Ecology and Biodiversity | 2 (1+1) |

| | | | |
|-----|----------|---------------------------------------|-----------|
| 5. | FIIC-311 | Pharmacology and Toxicology | 4 (3+1) |
| 6. | FPC-311 | Fish Freezing Technology | 2 (1+1) |
| 7. | FPC-312 | Fish Canning Technology and Packaging | 2 (1+1) |
| 8. | FEC-311 | Aquaculture Engineering | 3 (2+1) |
| 9. | FESC-311 | Statistical Methods | 3 (2+1) |
| 10. | FFT-311 | Education Tour (2 Weeks) | 2(0+2) NG |

IIIrd Year: Semester-II

| Sl. No. | Course Code | Course Title | Credit hour |
|---------|-------------|---------------------------------------------|-------------|
| 1. | FAC-321 | Fish Biotechnology and Bioinformatics | 2 (1+1) |
| 2. | FHC-321 | Fish Immunology | 2 (1+1) |
| 3. | FHC-322 | Therapeutics in Aquaculture | 2 (1+1) |
| 4. | FAEC-321 | Coastal Zone Management | 2 (1+1) |
| 5. | FPC-321 | Microbiology of Fish and Fisheries Products | 2 (1+1) |
| 6. | FEC-321 | Refrigeration and Equipment Engineering | 2 (1+1) |
| 7. | FEC-322 | Navigation and Seamanship | 2 (1+1) |
| 8. | FESC-321 | Fisheries Economics | 3 (2+1) |
| 9. | FESC-322 | Fisheries Policy and Laws | 1 (1+0) |
| 10. | FESC-323 | Fisheries Co-operative and Marketing | 2 (1+1) |

IVth Year: Semester-I

| Sl. No. | Course Title | Credit hour |
|---------|----------------------------|-------------|
| 1. | Elective Courses (Major)# | 12 |
| 2. | Elective Courses (Minor)## | 8 |

Elective (major/minor) courses

| S. No. | Course Code | Course Title | Credit Hours |
|----------------------------------------------------------------------------------------|-------------|------------------------|--------------|
| Major Courses (Students have the option to choose any Four Major Courses - 12 credits) | | | |
| 1. | FAE-411 | Open-water Aquaculture | 3 (2+1) |

| | | | |
|---------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------|---------|
| 2. | FAE-412 | Smart Aquaculture Production Systems | 3 (2+1) |
| 3. | FHE-411 | Fish and Shellfish Pathology | 3 (2+1) |
| 4. | FHE-412 | Disease Diagnostic Techniques | 3 (2+1) |
| 5. | FRE-411 | Sustainable Fisheries Management and Conservation | 3 (2+1) |
| 6. | FAEE-411 | Aquatic Pollution | 3 (2+1) |
| 7. | FACE-412 | Fishery Oceanography | 3 (2+1) |
| 8. | FAEE-413 | Analytical Techniques in Aquatic Environmental Studies | 3 (2+1) |
| 9. | FPE-411 | Quality Assurance of Fish and Fishery Products | 3 (2+1) |
| Minor Courses (Students have the option to choose any Four Minor Courses - 8 credits) | | | |
| 1. | FAE-412 | Coldwater Aquaculture and Recreational Fisheries | 2 (1+1) |
| 2. | FAEE-414 | Aquatic Microbiology | 2 (1+1) |
| 3. | FAEE-415 | Climate Change and its Impact on Fisheries | 2 (2+0) |
| 4. | FEE-411 | GIS and Remote Sensing in Fisheries | 2 (1+1) |
| 5. | FEE-412 | Responsible and Sustainable Fishing Methods | 2 (1+1) |
| 6. | FPE-412 | Principles and Techniques of Seafood Analysis | 2 (1+1) |
| 7. | FPE-413 | Trade Regulations, Certification and Documentation in Export of Fish and Fishery Products | 2 (1+1) |
| 8. | FESE-411 | Marketing Intelligence and Business Analysis | 2 (1+1) |
| 9. | FESE-412 | ICT in Fisheries | 2 (1+1) |

IVth Year: Semester-II

| Sl. No. | Course Code | Course Title | Credit hour | Total credit hours |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------|-------------|--------------------|
| Student opting for 4-year B. F. Sc. (Hons.) a Student READY (Students Entrepreneurship Awareness Development Yojana) Program on In-plant/Industry Attachment / Rural Fisheries Work Experience (RFWE) Program/ Experiential Learning Program (ELP) / Project Work) / Seminar will be undertaken as follows. | | | | |
| 1. | FSR-421 | In-plant/ Industry Attachment (for 8 weeks) | 5 (0+5) | 20 (0+20) |

| | | | | |
|----|---------|-----------------------------------------------------------------|---------|--|
| 2. | FSR-422 | Rural Fisheries Work Experience (RFWE) Program (for 8 weeks) | 6 (0+6) | |
| 3. | FSR-423 | Experiential Learning Program (ELP) | 6 (0+6) | |
| 4. | FSR-424 | Project Work | 2 (0+2) | |
| 5. | FSR-425 | Seminar | 1 (0+1) | |

* From the basket of courses of Skill Enhancement Courses

** Mandatory requirement for UG-Certificate.

*** Mandatory requirement for UG-Diploma.

#Students have option to choose any Four Major Courses (12 credits) from the list of courses

Students have option to choose any Four Minor Courses (08 credits) from the list of courses

Basic Supporting Courses

| Sl. No. | Course Category | Course Title | Credit Hours |
|----------------------|-----------------|-----------------------------------------------------------------|------------------------|
| 1. | FFD | Deeksharambha Induction-cum-Foundation course) 2 weeks duration | 2 (0+2) Non-Gradial |
| 2. | FMS | Farming-Based Livelihood Systems | 3 (2+1) |
| 3. | FMS | Entrepreneurship Development and Business Management | 3 (2+1) |
| 4. | FMS | Agriculture Marketing and Trade | 3 (2+1) |
| 5. | FVS | Environmental Studies and Disaster Management | 3 (2+1) |
| 6. | FVS | Agricultural Informatics and Artificial Intelligence | 3 (2+1) |
| 7. | FAS | Communication Skills | 2 (1+1) |
| 8. | FAS | Personality Development | 2 (1+1) |
| 9. | FAS | Physical Education, First Aid, Yoga Practice and Meditation | 2 (0+2) |
| 10. | FAS | NSS/ NCC | 2 (0+2) |
| 11. | FFT | Educational Tour (2 Weeks Duration) | Non-Gradial |
| Total Credits | | | 25(12+13) |

Summary of Credit Distributions

| Type of courses | Credits |
|----------------------------------------|-----------------|
| Core courses (Major and Minor/s) | 120 |
| Common courses (FMS+FVS+FAS) | 23 |
| Skill Enhancement Courses (SEC) or FSE | 12 |
| Internship/ Student READY | 20 |
| **MOOCS/SWAYAM : | 10 Non-Gradial |
| Total | 175+10** |

SKILL ENHANCEMENT COURSES

- Students will be offered Skill Enhancement Course (SEC) consisting of courses from different areas to provide intensive Hands-on-training on campus or off Campus. Students may choose SIX Skill Enhancement Courses from the basket of SEC in 1st to 4th Semesters.
- University may introduce more Skill Enhancement Courses based on the available facilities and prospect of local employment and entrepreneurship development as well as expertise/resources available
- Students may opt UGC recommended short skill enhancement courses also (a list of skill development training areas as given in the main report).

Code SEC change by FSE

| Sl. No. | Course Title | Credit Hours |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------|
| Aquaaculture | | |
| SEC-I | Fish/Shellfish Breeding and Hatchery Operation | 2 (0+2) |
| SEC-II | Fish/Shellfish Seed Rearing | 2 (0+2) |
| SEC-III | Fish/Shellfish Grow-out Production Management | 2 (0+2) |
| SEC-IV | Breeding and Culture of Ornamental Fish | 2 (0+2) |
| SEC-V | Integrated Fish Farming | 2 (0+2) |
| SEC-VI | Non-conventional/Diversified Farming Practices (Pearl Farming/Seaweed Farming/ Aquaponics/Microalgae Production, etc.) | 2 (0+2) |
| SEC-VIII | Fish Feed Production and Marketing | 2 (0+2) |
| SEC-XIII | Aquarium Making, Decoration and Management | 2 (0+2) |
| Aquatic Environment Management | | |
| SEC-VII | Analytical Techniques (Testing of Water, Soil, Feed etc.) | 2 (0+2) |
| Aquatic Animal Health Management | | |
| SEC-IX | Laboratory Techniques for Fish Pathogen Detection | 2 (0+2) |
| Fish Processing Technology | | |
| SEC-X | Preparation and Marketing of Value-Added Products | 2 (0+2) |
| SEC-XII | Preparation of Fish By-Products and Waste Utilization | 2 (0+2) |
| SEC-XVI | Fish Handling, Transportation and Preservation | 2 (0+2) |
| SEC-XVII | Bio-chemical Analysis of Fish and fisheries products | 2 (0+2) |
| Fishing Technology and Engineering | | |
| SEC-XIV | Net Making and Mending | 2 (0+2) |
| Fishery Extension, Economics and Statistics | | |
| SEC-XV | Start-up and Incubation in Fisheries | 2 (0+2) |
| SEC-XVIII | Data Analysis and Computation | 2 (0+2) |
| SEC-XIX | Fish Market Survey and Value Chain Analysis | 2 (0+2) |
| Others | | |
| SEC-XX | Any other relevant to the region, which may be decided by the College | 2 (0+2) |



ONLINE COURSES

- SAUs/CAUs will be free to include more online courses of 10 credits (as per UGC guidelines for online courses) as a partial requirement for the B. F. Sc. programme. Student will take in online mode, with approval from Dean of the SAU/CAU/College.

Indicative List of Online Courses on SWAYAM/MOOCs/Others

| Course Title | Duration | Credits |
|-------------------------------------------------------|----------|---------|
| 1. Climate-smart fisheries and aquaculture (FAO) | 16 weeks | 1 |
| 2. Food loss and waste in fish value chain (FAO) | 12 weeks | 1 |
| 3. Biostatistics (SWAYAM) | 14 weeks | 4 |
| 4. Econometric Analysis (SWAYAM) | 15 weeks | 4 |
| 5. Fisheries Ecosystem Approach to Fisheries (FAO) | 12 weeks | 1 |
| 6. Sustainable Management of Biodiversity (SWAYAM) | 12 weeks | 4 |
| 7. Indian Agriculture Development (SWAYAM) | 20 weeks | 4 |
| 8. Environment Sustainability (SWAYAM) | 6 weeks | 1 |
| 9. Artificial Intelligence (SWAYAM) | 15 weeks | 4 |
| 10. Communication Technology in Education (SWAYAM) | 15 weeks | 4 |
| 11. Knowledge Society (SWAYAM) | 15 weeks | 3 |
| 12. NGO'S and Sustainable Development | 15 weeks | 1 |
| 13. Counseling Psychology | 12 weeks | 1 |
| 14. Gender Sensitization: Society Culture and Change | 16 weeks | 1 |
| 15. Psychology of Stress, Health and Well-being | 12 weeks | 1 |
| 16. Environmental Law (SWAYAM) | 20 weeks | 4 |
| 17. Food Microbiology and Food Safety (SWAYAM) | 15 weeks | 4 |
| 18. Intellectual Property (SWAYAM) | 15 weeks | 4 |
| 19. Introduction To R (SWAYAM) | 14 weeks | 4 |
| 20. Research Methodology (SWAYAM) | 15 weeks | 4 |
| 21. Nanotechnology Applications in Fisheries | 8 weeks | 1 |
| 22. Personality Development and Communication Skills | 8 weeks | 1 |
| 23. Public Speaking | 8 weeks | 1 |
| 24. Personality Development | 8 weeks | 1 |
| 25. Emotional Intelligence | 8 weeks | 1 |
| 26. Yoga Practices 1 | 12 weeks | 1 |
| 27. Yoga Practices 2 | 12 weeks | 1 |
| 28. Ethics: Theories and Applications | 12 weeks | 1 |
| 29. Information Sources and Library Services | 6 weeks | 1 |
| 30. Qualitative Research Methods and Research Writing | 12 weeks | 1 |
| 31. Extension and Communication Management | 12 weeks | 1 |

College of Community Science**B.Sc. (Hons.) Community Science (4 Years degree programme)****1st Year, 1 Semester**

| S.No. | Course Number | Course Title | Credit Hours |
|-------|---------------|---------------------------------------------|--------------------------------|
| 1 | CFC-111 | Deeksharambh (Foundation Course of 2 Weeks) | 2(0+2) Non- Gradial |
| 2 | CFN-111 | Food Standards and Quality Control | 3(2+1) |
| 3 | CAI-111 | Textile Science and Fabric Care | 2(1+1) |
| 4 | CRM-111 | Fundamental of Art and Design | 2(1+1) |
| 5 | CHD-111 | Childhood Development | 3(2+1) |
| 6 | CEE-111 | Communication for Development | 2(1+1) |
| 7 | CMD-111 | Farming System Based Livelihood | 3(2+1) |
| 8 | NAE-111 | Communication Skills | 2(1+1) |



| | | | |
|----------------------|------------------|----------------------------------------------------------------|-------------------------|
| 9 | NAE-112/ NAE-113 | National Cadet Corps- NCC-I/ National Service Scheme-I (NSS-I) | 1(0+1) |
| 10 | | Skill Enhancement Course (SEC-I) * | 2(0+2) |
| 11 | | Skill Enhancement Course (SEC-II) * | 2(0+2) |
| Total Credits | | | 22(10+12) (+2NG) |

***SEC-I and *SEC-II to be selected from the list of the basket available under SEC-module-I**
Indicative options for SEC- MODULE-I (any one module to be selected)**

| S.No. | Module | Course Code | Courses | Credit Hours |
|-------|-------------------------------------------------|-------------|------------------------------------------------------|--------------|
| 1. | Bakery and Confectionary management-I | CSFN-111 | Breads and Buns | 2 (0+2) |
| | | CSFN-112 | Biscuits and Cookies | 2 (0+2) |
| 2. | Textile Design and Embellishment-I | CSAT-111 | Textile Dying and Printing | 2(0+2) |
| | | CSAT-112 | Fabric embellishment | 2(0+2) |
| 3. | Event Management and Housekeeping-I | CSRM-111 | Housekeeping and Service Management | 2 (0+2) |
| | | CSRM-112 | Floral Art and Design-I | 2 (0+2) |
| 4. | Childhood Development and Assessment-I | CSHD-111 | Developmental Assessment-I (Infancy and Toddlerhood) | 2 (0+2) |
| | | CSHD-112 | Developmental Assessment-II | 2 (0+2) |
| 5. | Extension Education for Community Development-I | CSEE-111 | Audio Visual Aids for Communication | 2 (0+2) |
| | | CSEE-112 | Extension Teaching Methods | 2 (0+2) |

II Semester

| S. No. | Course Number | Course Title | Credit Hours |
|----------------------|------------------|-------------------------------------------------------------------|------------------|
| 1 | CFN-121 | Food Science and Processing | 3(1+2) |
| 2 | CAT-121 | Fundamentals of Clothing Construction | 3(1+2) |
| 3 | CRM-121 | Fundamentals of Ergonomics | 2(1+1) |
| 4 | CHD-121 | Theoretical Approaches to Parenting | 2(2+0) |
| 5. | CSTAT-121 | Statistical Methods | 2 (1+1) |
| 6 | CMD-121 | Entrepreneurship Development and Business Management | 3(2+1) |
| 7 | CVA-121 | Environmental Studies | 3(2+1) |
| 8 | | *Skill Enhancement Course (SEC-III) | 2(0+2) |
| 9 | | *Skill Enhancement Course (SEC-IV) | 2(0+2) |
| 10 | NAE-122/ NAE-123 | National Cadet Corps- NCC-II/ National Service Scheme-II (NSS-II) | 1(0+1) |
| Total Credits | | | 23(10+13) |

***SEC-III and *SEC-IV to be selected from the list of the basket available under SEC-module- II**
Indicative options for SEC-MODULE-II (any one previous selected module)**

| S.No. | Module | Course Code | Courses | Credit Hours |
|-------|----------------------------------------|-------------|------------------------|--------------|
| 1. | Bakery and Confectionary management-II | CSFN-121 | Cakes and Pastries | 2 (0+2) |
| | | CSFN-122 | Chocolate Making | 2 (0+2) |
| 2. | Textile Design and Embellishment-II | CSAT-121 | Indian Embroideries | 2(0+2) |
| | | CSAT-122 | Quilting and Patchwork | 2(0+2) |

| | | | | |
|----|--------------------------------------------------|----------|--------------------------------------------|---------|
| 3. | Event Management and Housekeeping-II | CSRM-121 | Housekeeping and Service Management-II | 2 (0+2) |
| | | CSRM-122 | Event Planning and Management | 2 (0+2) |
| 4. | Childhood Development and Assessments-II | CSDH-121 | Infant Stimulation Practices | 2 (0+2) |
| | | CSDH-122 | Health Practices in Early Childhood | 2 (0+2) |
| 5. | Extension Education for Community Development-II | CSEE-121 | Computerized Instructional Aids Production | 2 (0+2) |
| | | CSEE-122 | ICT and New Media | 2 (0+2) |

Post -II Semester Internship (only for exit option for award of UG- Certificate)

| S. No. | Course Number | Course Title | Credit hours |
|--------|---------------|-----------------------|--------------|
| 1. | CINT-121 | Internship (10 weeks) | 10(0+10) |

- Compulsory Internship for students exercising exit option (UG-Diploma) after I Year

IInd Year, III Semester

| S. No. | Course Number | Course Title | Credit Hours |
|----------------------|---------------|--------------------------------------------------------------|-----------------|
| 1 | CFN-211 | Food Packaging and Labelling | 2(1+1) |
| 2 | CAT-211 | Pattern Making and Draping | 3(1+2) |
| 3 | CRM-211 | Computer-aided Interior designing-I | 3(1+2) |
| 4 | CHD-211 | Early Childhood Education | 3(2+1) |
| 5 | CEE-211 | Extension and Rural Development | 3(2+1) |
| 6 | CEE-212 | Rural Sociology | 2(2+0) |
| 7 | NAE-211 | Physical Education, first aid, yoga practices and meditation | 2(0+2) |
| 8 | | *Skill Enhancement Course (SEC-V) | 1(0+1) |
| 9 | | *Skill Enhancement Course (SEC-VI) | 1(0+1) |
| Total Credits | | | 20(9+11) |

*SEC-V and *SEC-VI to be selected from the list of the basket available under SEC-III module
Indicative options for SEC-MODULE-III** (any one module to be selected)

| S.No. | Module | Course Code | Courses | Credit Hours |
|-------|-------------------------------------------|-------------|------------------------------------------------|--------------|
| 1. | Food Service Management-I | CSFN-211 | Quantity Cookery | 1 (0+1) |
| | | CSFN-212 | Traditional Indian Foods | 1 (0+1) |
| 2. | Fashion Designing-I | CSAT-211 | Garment Designing | 1(0+1) |
| | | CSAT-212 | Accessory Designing | 1(0+1) |
| 3. | Interior Design and Decoration-I | CSRM - 211 | Interior Designing and Decoration-I | 1 (0+1) |
| | | CSRM-212 | Floral Art and Design-II | 1 (0+1) |
| 4. | Early Childhood Care and Education-I | CSDH-211 | Establishment of ECCE Centers | 1 (0+1) |
| | | CSDH-212 | Program Planning and Execution in ECCE centers | 1 (0+1) |
| 5. | Communication Technology and Journalism-I | CSEE-211 | Print Journalism | 1 (0+1) |
| | | CSEE-212 | Electronic Journalism | 1 (0+1) |

IV Semester

| S. No. | Course Number | Course Title | Credit Hours |
|--------|---------------|---------------------------------------|--------------|
| 1 | CFN-221 | Institutional Food Service Management | 3 (2+1) |
| 2 | CAT-221 | Retailing and Merchandising | 2(1+1) |

| | | | |
|---------------------|---------|-----------------------------------------------------|------------------|
| 3 | CRM-221 | Housing and Space Management | 3(1+2) |
| 4 | CHD-221 | Theories and Practices in Early Childhood Education | 2 (2+0) |
| 5 | CEE-221 | Training and Professional Development | 2(0+2) |
| 6 | CMD-221 | Agricultural Marketing and Trade | 3 (2+1) |
| 7 | CVA-221 | Agriculture Informatics and Artificial Intelligence | 3 (2+1) |
| 8 | | *Skill Enhancement Course (SEC-VII) | 1 (0+1) |
| 9 | | *Skill Enhancement Course (SEC-VIII) | 1 (0+1) |
| Total Credit | | | 20(10+10) |

*SEC-VII and *SEC-VIII to be selected from the list of the basket available under SEC-module- IV
Indicative options for SEC-IV MODULE** (any one previous selected module)

| S.No. | Module | Course Code | Courses | Credit Hours |
|-------|--------------------------------------------|-------------|------------------------------------------|--------------|
| 1. | Food Service Management-II | CSFN-221 | Food Preservation and Storage-I | 1 (0+1) |
| | | CSFN-222 | Food Preservation and Storage-II | 1 (0+1) |
| 2. | Fashion Designing-II | CSAT-221 | Fashion Illustration | 1(0+1) |
| | | CSAT-222 | Portfolio Development | 1(0+1) |
| 3. | Interior Design and Decoration-II | CSRM-221 | Interior Accessories and Furnishings | 1 (0+1) |
| | | CSRM-222 | Interior Designing and Decoration-II | 1 (0+1) |
| 4. | Early Childhood Care and Education-II | CSHD-221 | Management of ECCE center | 1 (0+1) |
| | | CSHD-222 | Monitoring and evaluation of ECCE center | 1 (0+1) |
| 5. | Communication Technology and Journalism-II | CSEE-221 | Audio and Video Recording | 1 (0+1) |
| | | CSEE-222 | Instructional Video Production | 1 (0+1) |

Post -IV Semester Internship (only for exit option for award of UG- Diploma)

| S.No. | Course Number | Course Title | Credit hours |
|-------|---------------|-----------------------|--------------|
| 1. | CINT-221 | Internship (10 weeks) | 10(0+10) |

- Compulsory Internship for students exercising exit option (UG-Diploma) after II Year

IIIrd Year, V Semester

| S. No. | Course Number | Course Title | Credit Hours |
|----------------------|---------------|-----------------------------------|------------------------|
| 1 | CHPY-311 | Human Physiology | 3 (2+1) |
| 2 | CFN-311 | Food Hygiene and Sanitation | 1 (1+0) |
| 3 | CAT-311 | Techniques of Fabric Construction | 3 (1+2) |
| 4 | CAT-312 | Principles of Textile Designing | 3 (0+3) |
| 5 | CRM-311 | Consumer Education | 3 (1+2) |
| 6 | CHD-311 | Adolescent Development | 3 (2+1) |
| 7 | CHD-312 | Adulthood Development | 2 (1+1) |
| 8 | CEE-311 | Project Management | 3 (2+1) |
| 9 | CFC-311 | Educational Tour (10-12 days) | 2 (0+2) non-gradual |
| Total Credits | | | 21(10+11) +2 NG |

VI Semester

| S. No. | Course Number | Course Title | Credit Hours |
|--------|---------------|--------------------------|--------------|
| 1 | CFN-321 | Nutritional Biochemistry | 3 (2+1) |

| | | | |
|----------------------|---------|--------------------------------------------|-----------------|
| 2 | CFN-322 | Human Nutrition | 3 (2+1) |
| 3 | CAT-321 | Traditional Textiles and Costumes of India | 3 (2+1) |
| 4 | CRM-321 | Principles of Management | 2 (2+0) |
| 5 | CRM-322 | Computer Aided Interior Designing-II | 3 (0+3) |
| 6 | CHD-321 | Marriage and Family Dynamics | 3 (2+1) |
| 7 | CEE-321 | Diffusion and Adoption of Innovation | 3 (2+1) |
| 8 | CEE-322 | Seminar | 1 (0+1) |
| Total Credits | | | 21(12+9) |

IVth Year, VII Semester

| S.No. | Course Number | Course Title | Credit Hours |
|----------------------|---------------|-------------------------------------------------------------|--------------|
| 1 | CEXT -411 | Research Methodology | 3 (2+1) |
| 2 | NAE-412 | Personality Development | 2(1+1) |
| 3 | | Elective courses from major / minor (Anyone specialization) | 15 |
| Total Credits | | | 20 |

List of elective courses

Elective 1-Food & Nutrition (FN)

| S.No. | Course Number | Course Title | Credit Hours |
|-------|---------------|-------------------------------------------|--------------|
| 1. | CFN-411 | Food Analysis | 3(1+2) |
| 2. | CFN-412 | Normal and Therapeutic Nutrition | 3(2+1) |
| 3. | CFN-413 | Food Product Development and Formulations | 2(1+1) |
| 4. | CFN-414 | Clinical Nutrition | 2(2+0) |
| 5. | CFN-415 | Diet and Nutrition Counselling | 1(0+1) |
| 6. | CFN-416 | Sports Nutrition | 2(2+0) |
| 7. | CFN-417 | Community Nutrition and Education | 2(1+1) |

Elective 2-Apparel and Textile Science (ATS)

| S.No. | Course Number | Course Title | Credit Hours |
|-------|---------------|------------------------------------------|--------------|
| 1. | CAT-411 | Advance Draping Technique | 3(0+3) |
| 2. | CAT-412 | CAD-Pattern Making and Grading | 2(0+2) |
| 3. | CAT-413 | Quality Analysis in Textile and Apparels | 3(2+1) |
| 4. | CAT-414 | Apparel Production Management | 3(3+0) |
| 5. | CAT-415 | Agro Textiles | 2(1+1) |
| 6. | CAT-416 | Recent Advances in Textiles | 2(2+0) |

Elective 3-Resource Management and Consumer Science (RMCS)

| S.No. | Course Number | Course Title | Credit Hours |
|-------|---------------|--------------------------------------------|--------------|
| 1. | CRM-411 | Residential and Commercial Space Design | 3(1+2) |
| 2. | CRM-412 | Colour and Lighting in Interiors | 3(2+1) |
| 3. | CRM-413 | Tourism and Hospitality Management | 3(1+2) |
| 4. | CRM-414 | Financial Management and Consumer Behavior | 3(2+1) |
| 5. | CRM-415 | Work Space and Product Design | 3(1+2) |

Elective 4-Human Development and Family Studies (HDFS)

| S.No. | Course Number | Course Title | Credit Hours |
|-------|---------------|--------------------------------------|--------------|
| 1. | CHD-411 | Developmental Challenges in Children | 3(2+1) |

| | | | |
|----|---------|---------------------------------------------------|--------|
| 2. | CHD-412 | Methods and Materials for Teaching Young Children | 3(1+2) |
| 3. | CHD-413 | Computer application in ECCE | 3(1+2) |
| 4. | CHD-414 | Guidance and Counselling | 3(2+1) |
| 5. | CHD-415 | Parent Education and Community welfare Programs | 3(2+1) |

Elective 5-Extension Education and Communication Management (EECM)

| S.No. | Course Number | Course Title | Credit Hours |
|-------|---------------|-----------------------------------------------|--------------|
| 1. | CEE-411 | Extension Program Management | 3(1+2) |
| 2. | CEE-412 | Extension Training Management | 3(1+2) |
| 3. | CEE-413 | Advertising and Social Marketing | 3(1+2) |
| 4. | CEE-414 | Public relations and Communication Management | 3(1+2) |
| 5. | CEE-415 | Web Designing | 3(0+3) |

VIII Semester

| S.No. | Course Number | Course Title | Credit Hours |
|--------------------------------|---------------|----------------------------------------|--------------|
| Student Ready Programme | | | |
| 1. | CSR-421 | Rural Awareness Work Experience (RAWE) | 10 (0+10) |
| 2. | CSR-422 | In-Plant | 05 (0+5) |
| 3. | CSR-423 | Internship | 05 (0+5) * |
| | CSR-424 | Industrial Attachment | |
| | CSR-425 | Experiential learning | |
| | CSR-426 | Hands on Training | |
| | CSR-427 | Student Project | |
| Total | | | 20 |

*out of 20 credits, 10 credits for RAWE and 05 credits for In-plant is fixed while flexibility given to choose 05 credits from any of the listed courses given in point no.-3

Summary of Credit Distributions

| S. No. | Type of Courses | Credits |
|--------------|------------------------------------------------------------------------------------------------------------|---------------------|
| 1 | Core courses (major and minor/s) | 112 |
| 2 | Common courses (MDC+VAC+AEC) | 23 |
| 3 | Skill Enhancement Courses (SEC) | 12 |
| 4 | Student Ready Programme (SRP) (RAWE/ In-plant/ Internship etc.) | 20 |
| 5 | **MOOCS/ SWAYAM (Online courses from any online govt. approved platforms i.e. SWYAM/NPTEL/IGNOU) | 10 |
| 6 | ***Non Gradial | 04 |
| Total | | 167+10**4*** |



B.Sc. (Hons) Food Nutrition and Dietetics**First Year ,I Semester**

| Sr. No. | Course Code | Course Title | Credit Hours | Total Credits |
|---------|-----------------------|------------------------------------------------|--------------|---------------|
| 1 | CFC-111 | Deeksharambh (Induction cum Foundation Course) | 2 (0+2) NG | 21 (8+13) |
| 2 | CFND- 111 | Introduction to Food Science and Nutrition | 3 (3+0) | |
| 3 | CFND -112 | Principles and Practices of Food Preparation | 2 (1+1) | |
| 4 | CFND -113 | Indian Cuisinology | 2 (0+2) | |
| 5 | CFND -114 | Nutritional Status Assessment | 3 (2+1) | |
| 6 | CFND -115 | Convenience and Health Food Formulation | 2 (0+2) | |
| 7 | CMD -111 | Farming-based Livelihood Systems | 3 (2+1) | |
| 8 | | Skill Enhancement Courses (SEC-I)* | 2 (0+2) | |
| 9 | | Skill Enhancement Courses (SEC-II)* | 2 (0+2) | |
| 10 | NAE-111 | Communication Skills | 2 (1+1) | |
| 11 | NAE -112/ NAE- 113 | NSS-I / NCC-I | 1 (0+1) | |

(SEC-I)* and (SEC-II)* to be selected from basket of following available SEC modules

Skill Enhancement Courses (SEC)* for First Year, Semester I

| Sr. No. | Module Name | Course Code | Course Title | Credit Hours |
|---------|-----------------|-------------|---------------------------|--------------|
| SEC I | Food Science I | CSFS -111 | Cake Making | 2 (0+2) |
| | Food Science I | CSFS -112 | Cake Decoration and Icing | 2 (0+2) |
| SEC II | Food Science II | CSFS -113 | Jam and Jelly Preparation | 2 (0+2) |
| | Food Science II | CSFS -114 | Pickle Preparation | 2 (0+2) |

II Semester

| Sr. No. | Course Code | Course Title | Credit Hours | Total Credits |
|---------|-----------------------|------------------------------------------------------|--------------|---------------|
| 1 | CFND- 121 | Bakery Science and Technology | 3 (2+1) | 21 (10+11) |
| 2 | CFND -122 | Nutritional Program Surveillance | 3 (1+2) | |
| 3 | CFND -123 | Food Preservation and Storage | 2 (0+2) | |
| 4 | NAE-121 | Personality Development | 2 (1+1) | |
| 5 | CMD -121 | Entrepreneurship Development and Business Management | 3 (2+1) | |
| 6 | CVA -121 | Environmental Studies | 3 (2+1) | |
| 7 | | Skill Enhancement Courses (SEC-III)* | 2 (0+2) | |
| 8 | | Skill Enhancement Courses (SEC-IV)* | 2 (0+2) | |
| 9 | NAE -122/ NAE -123 | NSS-II / NCC-II | 1 (0+1) | |

(SEC-I)* and (SEC-II)* to be selected from basket of following available SEC modules

Skill Enhancement Courses (SEC)* for First Year, Semester II

| Category | Module Name | Course Code | Course Title | Credit Hours |
|----------|------------------|-------------|------------------------------------|--------------|
| SEC III | Food Science III | CSFS-121 | Sugar Processing and Confectionery | 2 (0+2) |
| | Food Science III | CSFS -122 | Indian Traditional Sweets | 2 (0+2) |
| SEC IV | Food Science IV | CSFS -123 | Candy Making | 2 (0+2) |
| | Food Science IV | CSFS -124 | Ready-to-Eat Snacks | 2 (0+2) |

Post -II Semester Internship (only for exit option for award of UG- Certificate)

| S. No. | Course Number | Course Title | Credit hours |
|--------|---------------|-------------------------|--------------|
| 1 | CFINT-121 | Internship** (10 weeks) | 10 (0+10) * |

- Compulsory Internship for students exercising exit option (UG-Diploma) after I Year

Second Year, III Semester

| Sr. No. | Course Code | Course Title | Credit Hours | Total Credits |
|---------|-------------|--------------------------------------------------------------|--------------|---------------|
| 1 | CFND -211 | Principles of Human Nutrition | 4 (4+0) | 22 (15+7) |
| 2 | CFND -212 | Fundamentals of Food Science | 2 (1+1) | |
| 3 | CFND -213 | Community Nutrition and Education | 3 (2+1) | |
| 4 | CHPY -211 | Human Physiology | 3 (2+1) | |
| 5 | CFND -214 | Economics and Food Business Management | 2 (2+0) | |
| 6 | CFND -215 | Food Psychology | 2 (2+0) | |
| 7 | CFND -216 | Food Nutrition and Agriculture | 2 (2+0) | |
| 8 | | Skill Enhancement Courses (SEC-V) * | 2 (0+2) | |
| 9 | NAE-211 | Physical Education, First Aid, Yoga Practices and Meditation | 2 (0+2) | |

(SEC-V) * to be selected from basket of following available SEC modules

Skill Enhancement Courses (SEC)* for Second Year, Semester III

| SEM III | | | | |
|----------|-----------------------------------------|-------------|-------------------------------------------------|--------------|
| Category | Module Name | Course Code | Course Title | Credit Hours |
| SEC V | Nutrition & Dietetics I | CSND -211 | Development of Nutritional Educational Material | 2 (0+2) |
| | Institutional Food Service Management I | CSIM -211 | Quality Control in Food Processing Units | 2 (0+2) |

Second Year, IV Semester

| Sr. No. | Course Code | Course Title | Credit Hours | Total Credits |
|---------|-------------|------------------------------------------------------|--------------|---------------|
| 1 | CFND -221 | Normal Nutrition and Meal Planning | 3 (2+1) | 20 (13+7) |
| 2 | CFND -222 | Public Health Nutrition | 3 (2+1) | |
| 3 | CFND -223 | Nutritional Biochemistry | 3 (3+0) | |
| 4 | CFND -224 | Food Standards and Quality Control | 3 (2+1) | |
| 5 | | Skill Enhancement Courses (SEC-VI) * | 2 (0+2) | |
| 6 | CMD -221 | Agriculture Marketing and Trade | 3 (2+1) | |
| 7 | CVA -221 | Agricultural Informatics and Artificial Intelligence | 3 (2+1) | |

(SEC-VI) * to be selected from basket of following available SEC modules

Skill Enhancement Courses (SEC)* for Second Year, Semester IV

| SEM IV | | | | |
|----------|------------------------------------------|-------------|-------------------------------------------|--------------|
| Category | Module Name | Course Code | Course Title | Credit Hours |
| SEC VI | Nutrition & Dietetics II | CSND -221 | Assessment of clinical signs and symptoms | 2 (0+2) |
| | Institutional Food Service Management II | CSIM -221 | Development of Project Proposals | 2 (0+2) |

Post -IV Semester Internship (only for exit option for award of UG- Certificate)

| S. No. | Course Number | Course Title | Credit hours |
|--------|---------------|-------------------------|--------------|
| 1 | CFINT-221 | Internship** (10 weeks) | 10 (0+10) * |

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- Compulsory Internship for students exercising exit option (UG-Certificate) after II Year

Third Year, V Semester

| Sr No. | Course Code | Course Title | Credit Hours | Total Credits |
|--------|-------------|--------------------------------------|---------------------|---------------|
| 1 | CFND -311 | Therapeutic Nutrition | 4 (3+1) | 22 (15+7) |
| 2 | CFND -312 | Food Analysis | 3 (2+1) | |
| 3 | CFND -313 | Current Food Processing Technologies | 3 (2+1) | |
| 4 | CFND -314 | Diet & Nutrition Counselling | 2 (0+2) | |
| 5 | CFND -315 | Nutraceuticals & Health Foods | 2 (2+0) | |
| 6 | CFND -316 | Introduction to Clinical Nutrition | 3 (2+1) | |
| 7 | CSTAT- 311 | Statistical Methods | 3 (2+1) | |
| 8 | CFC -311 | Educational Tour (10-14 days) | 2 (0+2) Non-gradual | |

Third Year, VI Semester

| Semester VI | | | | |
|-------------|-------------|--------------------------------------------|--------------|---------------|
| Sr No. | Course Code | Course Title | Credit Hours | Total Credits |
| 1 | CFND- 321 | Food Nutrition Security | 2 (1+1) | 22 (13+9) |
| 2 | CFND -322 | Nutritional Body Composition & Fitness | 3 (2+1) | |
| 3 | CFND -323 | Food Microbiology | 3 (2+1) | |
| 4 | CFND -324 | Milk Processing & Technology | 3 (2+1) | |
| 5 | CFND -325 | Cereals & Millets: Processing & Technology | 3 (2+1) | |
| 6 | CFND -326 | Sustainable Nutrition | 3 (2+1) | |
| 7 | CFND -327 | Hospitality Management | 2 (1+1) | |
| 8 | CFND -328 | Food Hygiene & Sanitation | 2 (1+1) | |

Forth Year, VII Semester

| Sr No. | Course Code | Course Title | Credit Hours | Total Credits |
|--------|-------------|--------------------------|--------------|---------------|
| 1 | CFND-411 | Ethics in Human Research | 1 (1+0) | 20 |
| 2 | CFND -412 | Seminar | 1 (0+1) | |
| 3 | | Elective Courses* | 18 | |

List of Elective Courses

| Elective-1: Nutrition and Dietetics | | | |
|-------------------------------------|-------------|---------------------------------------------------------|--------------|
| Sr. No. | Course Code | Course Title | Credit Hours |
| 1 | CND- 411 | Diet Therapy for Hospitalized Cases | 4 (1+3) |
| 2 | CND- 412 | E-applications for Dietetics | 4 (1+3) |
| 3 | CND -413 | Nutrigenomics | 2 (2+0) |
| 4 | CND -414 | Nutrition for Special Conditions | 3 (2+1) |
| 5 | CND -415 | Nutrition through Life Cycle | 3 (2+1) |
| 6 | CND -416 | Fundamentals of Research Methodology and Library Search | 2 (1+1) |
| 7 | CND -417 | Sports Nutrition | 3 (2+1) |

| | | | |
|---------------------------------|--------------------|-------------------------------------------------|---------------------|
| 8 | CND -418 | Diet and Immunity | 3 (2+1) |
| 9 | CND -419 | Global Nutrition | 2 (2+0) |
| Elective-2: Food Science | | | |
| Sr. No. | Course Code | Course Title | Credit Hours |
| 1 | CFS-411 | Food Processing and Packaging | 4 (3+1) |
| 2 | CFS -412 | Fruits and Vegetables Processing and Technology | 4 (2+2) |
| 3 | CFS -413 | Food Safety and Packaging | 2 (1+1) |
| 4 | CFS -414 | Food Toxicology and Quality Testing | 3 (2+1) |
| 5 | CFS- 415 | Food Chemistry | 3 (3+0) |
| 6 | CFS- 416 | Meat Processing and Technology | 3 (2+1) |
| 7 | CFS- 417 | Pulses and Oilseeds: Processing and Technology | 3 (2+1) |
| 8 | CFS- 418 | Sensory Evaluation of Foods | 2 (1+1) |

Elective-3: Institutional Food Service Management

| Sr. No. | Course Code | Course Title | Credit Hours |
|---------|-------------|---------------------------------------|--------------|
| 1 | CIM -411 | Institutional Food Service Management | 3 (0+3) |
| 2 | CIM -412 | Sensory Evaluation of Foods | 2 (1+1) |
| 3 | CIM -413 | Event Management | 3 (0+3) |
| 4 | CIM -414 | Food Processing and Packaging | 4 (3+1) |
| 5 | CIM -415 | Ergonomics in Food Service | 2 (2+0) |
| 6 | CIM -416 | Food Standards and Quality Control | 3 (2+1) |
| 7 | CIM -417 | Food Toxicology and Quality Testing | 3 (2+1) |
| 8 | CIM- 418 | Print and Electronic Journalism | 3 (0+3) |
| 9 | CIM- 419 | Tourism and Hospitality Management | 3 (1+2) |

Fourth Year, VIII Semester

| Semester VIII | | | | |
|---------------------------|-------------|-----------------------------|--------------|-------------------------------------------|
| Sr No. | Course Code | Course Title | Credit Hours | Total Credits |
| Student READY | | | | |
| Option A (Any Two) | | | | |
| 1 | CFSR- 421 | Inplant Training (10 weeks) | 10 (0+10) | 20 (0+10) |
| 2 | CFSR- 422 | Student Project | 10 (0+10) | |
| 3 | CFSR- 423 | Hands-On Training | 10 (0+10) | |
| Option B | | | | |
| 4 | CFSR-424 | Internship | 20 (0+20) | |
| Online courses (MOOC)* | | | | 10 |
| Grand Total | | | | 167 + 10* (MOOC) +4 (NG) |

Non-Gradial courses.

The students will take 10 credits of online courses either from MOOC/Swayam/ NPTEL/ mooKIT/ edX/ Coursera or any other portal accepted by the University during the third fourth year as a partial requirement for the B.Sc. Food Nutrition and Dietetics (Hons.).

Summary of credit distributions

| Type of Courses | Credits |
|----------------------------------|---------------------|
| Core Courses (Major and Minor/s) | 112 |
| Skill Enhancement Courses (SEC) | 12 |
| Common Courses (MDC + VAC + AEC) | 23 |
| Elective Courses | 20 |
| Total | 167 |
| Non Gradial* | 04 |
| MOOCs/SWAYAM** | 10 (Online Courses) |
| Grand Total | 181 |

College of MCAET, Ambedkar Nagar

Semester-wise Course Programme for B.Tech Agricultural Engineering as per 6th Dean Committee recommendation

| No. | Course No. | Title of the Course | Credit Hr |
|-------------------|------------|------------------------------------------------------|-------------------------|
| Semester-I | | | |
| 1. | TFC-111 | Deeksharambh | 0+2 (NG) Non-gradial |
| 2. | TBS-111 | Crop Production and Protection Technologies | 4(3+1) |
| 3. | TAE-111 | Introduction to Agricultural Engineering | 4(3+1) |
| 4. | TBS-112 | Surveying and Levelling | 3(1+2) |
| 5. | TME-111 | Workshop Technology and Practice | 2(0+2) |
| 6. | TBS -113 | Basic Electrical Gadgets and Instruments | 3(2+1) |
| 7. | TCS-111 | Agricultural Informatics and Artificial Intelligence | 3(2+1) |
| 8. | TFC-112 | NSS-I/NCC-I | 1(0+1) |
| Total | | | 20(11+9) |

Semester-II

| S.No. | Course No. | Course Title | Credit hrs |
|----------------------------------------------------------------|------------|-----------------------------------------------|--------------------------------------|
| 1. | TRP-121 | Skill Enhancement | 8(0+8) |
| 2. | TME-121 | Engineering Drawing | 2(0+2) |
| 3. | TCS-121 | Computer Programing and Data Structures | 2(0+2) |
| 4. | TBS-121 | Farming Based Livelihood Systems | 3(2+1) |
| 5. | TBS-122 | Environmental Studies and Disaster Management | 3(2+1) |
| 6. | TBS-123 | Communication Skills | 2(1+1) |
| 7. | TFC-121 | NSS-II/NCC-II | 1(0+1) |
| 8. | TBS-124 | Elementary Mathematics* | 2(2+0) NG |
| Total | | | 21(5+16) +2 (Non-gradial) |
| *Only for 10 +2 PCB and Agriculture background students | | | |

Post-II Semester

| S.No. | Course No. | Course Title | Credit hrs |
|-------|------------|-----------------------------------------------------------------------------|------------|
| 1. | TRP-101 | Internship (for 10 weeks, only for exit option for award of UG-Certificate) | 10(0+10) |

Semester-III

| S.No. | Course No. | Course Title | Credit hrs |
|--------------|------------|-----------------------------------------------------------------|-----------------|
| 1. | TBS-211 | Engineering Mathematics-I | 3(3+0) |
| 2. | TBS-212 | Engineering Physics | 3(2+1) |
| 3. | TBS-213 | Engineering Chemistry | 3(2+1) |
| 4. | TBS-214 | Engineering Mechanics | 3(2+1) |
| 5. | TBS-215 | Soil Mechanics | 2(1+1) |
| 6. | TSW-211 | Fluid Mechanics and Open Channel Hydraulics | 3(2+1) |
| 7. | TPF-211 | Engineering Properties of Agricultural Produce and Food Science | 3(2+1) |
| 8. | TFM-211 | Farm Machinery & Equipment - I | 3(2+1) |
| 9. | TFC-211 | Physical Education, First Aid, Yoga Practice and Meditation | 2(0+2) |
| Total | | | 25(16+9) |

Semester-IV

| S.No. | Course No. | Course Title | Credit hrs |
|-------|------------|-----------------------------------------|------------|
| 1. | TBS-221 | Engineering Mathematics-II | 3(3+0) |
| 2. | TBS-222 | Theory of Structures | 2(1+1) |
| 3. | TBS-223 | Building Construction & Cost Estimation | 2(2+0) |

| | | | |
|--------------|---------|----------------------------------------------------------|-----------------|
| 4. | TBS-224 | Entrepreneurship Development and Business Management | 3(2+1) |
| 5. | TSW-221 | Watershed Hydrology | 3(2+1) |
| 6. | TSW-222 | Soil and Water Conservation Engineering | 3(2+1) |
| 7. | TFM-221 | Farm Machinery & Equipment - II | 3(2+1) |
| 8. | TRE-221 | Renewable Energy Sources | 3(2+1) |
| 9. | TPF-221 | Post-harvest Engineering of Cereals, Pulses and Oilseeds | 3(2+1) |
| Total | | | 25(18+7) |

Post-4th Semester

| S.No. | Course No. | Course Title | Credit hrs |
|-------|------------|-----------------------------------------------------------------------------|------------|
| 1. | TRP-201 | Internship (for 10 weeks, only for exit option for award of UG-Certificate) | 10(0+10) |

Semester-V

| S.No. | Course No. | Course Title | Credit hrs |
|--------------|------------|-------------------------------------|--------------------------------------|
| 1. | TBS-311 | Strength of Materials | 2(1+1) |
| 2. | TME-311 | Theory of Machines | 2(2+0) |
| 3. | TME-312 | Thermodynamics and Heat Transfer | 3(3+0) |
| 4. | TFM-311 | Tractor & Automotive Engines | 3(2+1) |
| 5. | TID-311 | Irrigation and Drainage Engineering | 4(3+1) |
| 6. | TPF-311 | Food and Dairy Engineering | 4(3+1) |
| 7. | TBS-312 | Personality Development | 2(1+1) |
| 8. | TAE-311 | Seminar | 1(0+1) |
| 9. | TAE-312 | Study tour | 2(0+2)NG |
| Total | | | 21(15+6) +2 (Non-gradual) |

Semester-VI

| S.No. | Course No. | Course Title | Credit hrs |
|--------------|------------|-------------------------------------------------|-----------------|
| 1. | TFM-321 | Tractor Systems & Controls | 3(2+1) |
| 2. | TID-321 | Groundwater, Wells and Pumps | 3(2+1) |
| 3. | TCS-321 | Sensors, AI and Robotics in Agriculture | 3(2+1) |
| 4. | TBS-321 | Agricultural Structures & Environment Control | 3(2+1) |
| 5. | TRE-321 | Bioenergy Systems: Design and Applications | 3(2+1) |
| 6. | TME-321 | Refrigeration and Air-conditioning | 3(2+1) |
| 7. | TPF-321 | Post-harvest Engineering of Horticultural Crops | 2(1+1) |
| 8. | TAE-321 | Case study | 1(0+1) |
| Total | | | 21(13+8) |

Semester-VII

| S.No. | Course No. | Course Title | Credit hrs |
|--------------|------------|-------------------------------------------|------------------|
| 1. | TRP-411 | Project-I | 3(0+3) |
| 2. | TME-411 | Engineering Graphics and Design | 2(0+2) |
| 3. | TPF-411 | Food Quality and Safety | 3(2+1) |
| 4. | TSW-411 | Watershed Planning and Management | 3(2+1) |
| 5. | TID-411 | Sprinkler & Micro Irrigation Systems | 2(1+1) |
| 6. | TME-412 | Machine Design | 2(2+0) |
| 7. | TBS-411 | Electrical Machines | 3(2+1) |
| 8. | TBS-412 | Agricultural Statistics and Data Analysis | 2(1+1) |
| Total | | | 20(10+10) |

Semester-VIII

| S.No. | Course No. | Course Title | Credit hrs |
|-------|------------|---------------------------------------|------------|
| 1. | TRP-421 | Project-II | 4(0+4) |
| 2. | TRP-422 | In plant training/Research Internship | 8(0+8) |
| 3. | | Elective-I | 3(2+1) |

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|---------|------------------|-----------------|
| 4. | | Elective-II | 3(2+1) |
| 5. | | Elective-III | 3(2+1) |
| Total | | | 21(6+15) |
| 1. | TOL-001 | On-line course** | 06 |
| **Course can be taken any time during the 3 rd and 4 th year | | | |
| <ul style="list-style-type: none"> • May take one or more • Total duration of course(s) – 20 weeks/ 80 hours | | | |
| Grand Total | | | 174+6 |

| ELECTIVE COURSES | | | |
|-------------------------|-------------------|-----------------------------------------------------------|------------------|
| S.No. | Course No. | Course Title | Credit Hr |
| 1. | TFM-421 | Mechanics of Tillage and Traction | 3 (2+1) |
| 2. | TFM-422 | Farm Machinery Design and Production | 3 (2+1) |
| 3. | TFM-423 | Tractor Design and Testing | 3 (2+1) |
| 4. | TFM-424 | Hydraulic Drives and Controls | 3 (2+1) |
| 5. | TFM-425 | Human Engineering and Safety | 3 (2+1) |
| 6. | TFM-426 | Precision Agriculture and System Management | 3 (2+1) |
| 7. | TRE-421 | Photovoltaic Technology and Systems | 3 (2+1) |
| 8. | TRE-422 | Wind Power Technology and Systems | 3 (2+1) |
| 9. | TRE-423 | Waste and By-products Utilization | 3 (2+1) |
| 10. | TSW-421 | Floods and Control Measures | 3 (2+1) |
| 11. | TID-421 | Remote Sensing and GIS Applications | 3 (2+1) |
| 12. | TSW-422 | Information Technology for Land and Water Management | 3 (2+1) |
| 13. | TSW-423 | Wasteland Development | 3 (2+1) |
| 14. | TID-422 | Minor Irrigation and Command Area Development | 3 (2+1) |
| 15. | TID-423 | Management of Canal Irrigation System | 3 (2+1) |
| 16. | TID-424 | Water Quality and Management Measures | 3 (2+1) |
| 17. | TID-425 | Landscape Irrigation Design and Management | 3 (2+1) |
| 18. | TSW-424 | Application of Plastics in Agriculture | 3 (2+1) |
| 19. | TSW-425 | Precision Farming Techniques for Protected Cultivation | 3 (2+1) |
| 20. | TBS-421 | Environmental Engineering | 3 (2+1) |
| 21. | TPF-421 | Development of Processed Food Products | 3 (2+1) |
| 22. | TPF-422 | Food Packaging Technology | 3 (2+1) |
| 23. | TPF-423 | Food Plant and Equipment Design | 3 (2+1) |
| 24. | TPF-424 | Emerging Technologies in Food Processing | 3 (3+0) |
| 25. | TPF-425 | Processing of Livestock, Fish and Marine Products | 3 (2+1) |
| 26. | TPF-426 | Food Business Management and Entrepreneurship Development | 3 (3+0) |
| 27. | TCS-421 | MATLAB Programming | 3 (1+2) |
| 28. | TCS-422 | Python Programming | 3 (1+2) |
| 29. | TCS-423 | Artificial Intelligence | 3 (2+1) |
| 30. | TFM-427 | Advances in Automation and Robotics in Agriculture | 3 (2+1) |
| 31. | TCS-424 | Machine Learning | 3 (2+1) |
| 32. | TBS-422 | Operations Research | 3 (3+0) |
| 33. | TME-421 | Mechatronics | 3 (2+1) |
| 34. | TPF-427 | Natural Fibres: Extraction & Properties | 3 (2+1) |
| 35. | TPF-428 | Natural Fibre Applications in Agriculture | 3 (2+1) |
| 36. | TPF-429 | Processing of Natural Fibres | 3 (2+1) |
| 37. | TBS-423 | Agricultural Marketing and Trade | 3 (2+1) |



Department / section wise course breakup

| S.No. | Course No. | Course Title | Credit Hour |
|-------------------------------------------------------------|------------|-------------------------------------------------------------|-----------------------------------------|
| Foundation courses/ Ability Enhancement Courses, etc | | | |
| 1. | TFC-111 | Deeksharambh | 0+2 (NG) Non-Gradial |
| 2. | TFC-112 | NSS-I/NCC-I | 1(0+1) |
| 3. | TFC-121 | NSS-I/NCC-II | 1(0+1) |
| 4. | TFC-211 | Physical Education, First Aid, Yoga Practice and Meditation | 2(0+2) |
| TOTAL | | | 4(0+4) |
| Basic Agriculture | | | |
| 1. | TBS-111 | Crop Production and Protection Technologies | 4(3+1) |
| 2. | TBS-121 | Farming Based Livelihood Systems | 3(2+1) |
| 3. | TBS-122 | Environmental Studies and Disaster Management | 3(2+1) |
| 4. | TBS-412 | Agricultural Statistics and Data Analysis | 2(1+1) |
| TOTAL | | | 12(8+4) |
| Social Sciences | | | |
| 1. | TBS-123 | Communication Skill | 2(1+1) |
| 2. | TBS-312 | Personality Development | 2(1+1) |
| 3. | TBS-224 | Entrepreneurship Development and Business Management | 3(2+1) |
| TOTAL | | | 7(4+3) |
| Common Agricultural Engineering | | | |
| 1. | TAE-111 | Introduction to Agricultural Engineering | 4(3+1) |
| 2. | TAE-311 | Seminar | 1(0+1) |
| 3. | TAE-321 | Case Study | 1(0+1) |
| 4. | TAE-312 | Study Tour | 2(0+2)NG |
| TOTAL | | | 6(3+3) |
| Skill Enhancement Courses/Project | | | |
| 1. | TRP-121 | Skill Enhancement | 8(0+8) |
| 2. | TRP-411 | Project-I | 3(0+3) |
| 3. | TRP-421 | Project-II | 4(0+4) |
| TOTAL | | | 15(0+15) |
| In plant training/ Internship | | | |
| 1. | TRP-101 | Internship only for exit option for award of UG-Certificate | 10(0+10)# |
| 2. | TAE-201 | Internship only for exit option for award of UG-Diploma | 10(0+10)# |
| 3. | TAE-422 | In plant training/Research Internship | 8(0+8) |
| TOTAL | | | 8(0+8) #Credits not included |
| Basic Sciences | | | |
| 1. | TBS-124 | Elementary Mathematics* | 2(2+0) NG |
| 2. | TBS-211 | Engineering Mathematics-I | 3(3+0) |
| 3. | TBS-221 | Engineering Mathematics-II | 3(3+0) |
| 4. | TBS-212 | Engineering Physics | 3(2+1) |
| 5. | TBS-213 | Engineering Chemistry | 3(2+1) |
| TOTAL | | | 12(10+02) +2 (Non-gradial) |

| *Only for 10 +2 PCB and Agriculture background students | | | |
|------------------------------------------------------------------------|---------|-----------------------------------------------------------------|-----------------|
| Agricultural Structures and Civil and Environmental Engineering | | | |
| 1. | TBS-112 | Surveying and Levelling | 3(1+2) |
| 2. | TBS-214 | Engineering Mechanics | 3(2+1) |
| 3. | TBS-215 | Soil Mechanics | 2(1+1) |
| 4. | TBS-222 | Theory of Structures | 2(1+1) |
| 5. | TBS-223 | Building construction & Cost Estimation | 2(2+0) |
| 6. | TBS-311 | Strength of Materials | 2(1+1) |
| 7. | TBS-321 | Agricultural Structures & Environment Control | 3(2+1) |
| TOTAL | | | 17(10+7) |
| Mechanical Engineering | | | |
| 1. | TME-111 | Workshop Technology and Practice | 2(0+2) |
| 2. | TME-121 | Engineering Drawing | 2(0+2) |
| 3. | TME-311 | Theory of machines | 2(2+0) |
| 4. | TME-312 | Thermodynamics and Heat Transfer | 3(3+0) |
| 5. | TME-321 | Refrigeration and Air-conditioning | 3(2+1) |
| 6. | TME-412 | Machine Design | 2(2+0) |
| 7. | TME-411 | Engineering Graphics and Design | 2(0+2) |
| TOTAL | | | 16(9+7) |
| Electrical and Electronics Engineering | | | |
| 1. | TBS-113 | Basic Electrical Gadgets and Instruments | 3(2+1) |
| 2. | TBS-411 | Electrical Machines | 3(2+1) |
| TOTAL | | | 6(4+2) |
| Computer Science and Engineering | | | |
| 1. | TCS-111 | Agricultural Informatics and Artificial Intelligence | 3(2+1) |
| 2. | TCS-121 | Computer Programing and Data Structure | 2(0+2) |
| 3. | TCS-321 | Sensors, AI and robotics in Agriculture | 3(2+1) |
| TOTAL | | | 8(4+4) |
| Farm Machinery and Power Engineering | | | |
| 1. | TFM-211 | Farm Machinery & Equipment - I | 3(2+1) |
| 2. | TFM-221 | Farm Machinery & Equipment - II | 3(2+1) |
| 3. | TFM-311 | Tractor & Automotive Engines | 3(2+1) |
| 4. | TFM-321 | Tractor System & Controls | 3(2+1) |
| Renewable Energy Engineering | | | |
| 1. | TRE-221 | Renewable Energy Sources | 3(2+1) |
| 2. | TRE-321 | Bio-energy Systems: Design and Applications | 3(2+1) |
| TOTAL | | | 6(4+2) |
| Soil and Water Conservation Engineering | | | |
| 1. | TSW-211 | Fluid Mechanics and Open Channel Hydraulics | 3(2+1) |
| 2. | TSW-221 | Watershed Hydrology | 3(2+1) |
| 3. | TSW-222 | Soil and Water Conservation Engineering | 3(2+1) |
| 4. | TSW-411 | Watershed Planning and Management | 3(2+1) |
| TOTAL | | | 12(8+4) |
| Irrigation and Drainage Engineering | | | |
| 1. | TID-311 | Irrigation and Drainage Engineering | 4(3+1) |
| 2. | TID-321 | Groundwater, Wells and Pumps | 3(2+1) |
| 3. | TID-411 | Sprinkler & Micro Irrigation Systems | 2(1+1) |
| TOTAL | | | 9(6+3) |
| Processing and Food Engineering | | | |
| 1. | TPF-211 | Engineering Properties of Agricultural Produce and Food Science | 3(2+1) |
| 2. | TPF-221 | Post-harvest Engineering of Cereals, Pulses and Oilseeds | 3(2+1) |

| | | | |
|--------------|---------|-------------------------------------------------|-----------------|
| 3. | TPF-311 | Food and Dairy Engineering | 4(3+1) |
| 4. | TPF-321 | Post-harvest Engineering of Horticultural Crops | 2(1+1) |
| 5. | TPF-411 | Food Quality and Safety | 3(2+1) |
| TOTAL | | | 15(10+5) |

315:1835 To consider and approve the proposal for number of seats for admission in Under-graduate and Post-graduate degree programmes of the six colleges of the University through UPCATET-2025 prepared as per proposal/recommendations submitted by Dean's of the respective colleges.

The Academic Council thoroughly discussed the number of seats for admission in UG, PG and Ph.D. Programme of all colleges of the university through UPCATET-2025 prepared as per proposals/recommendations submitted by Deans of the respective colleges. The Academic Council unanimously resolved that the paid seats be added in free/normal seat where no admission had been taken on paid seat in previous year. The Academic Council approved the amended list which is given below:

Number of Seats Under Graduate Degree Programme Academic Year 2025-26

| S.N. | Course Name | Essential Qualification | Total Intake of the University | Total Seat UPCATET-2025 | | | ICAR Quota Seats 20%/VCI-15% |
|--------------|--------------------------------------------|-------------------------------------------------------------------------------|--------------------------------|-------------------------|-----------|-----------|------------------------------|
| | | | | Normal Seat | Paid Seat | NRI Seat | |
| 1 | B.Sc. (Hons.) Agriculture, main Campus | Intermediate in Agri. Sci. /PCB/ PCM/PCMB | 175 | 100 | 38 | 02 | 35 |
| 2 | B.Sc. (Hons.) AgricultureAzamgarh Campus | Intermediate in Agri. Sci. /PCB/ PCM/PCMB | 106 | 85 | - | - | 21 |
| 3 | B.Sc. (Hons.) Agriculture, Gonda Campus | Intermediate in Agri. Sci. /PCB/ PCM/PCMB | 81 | 65 | - | - | 16 |
| Total | | | 362 | 250 | 38 | 02 | 72 |
| 4 | B.Sc. (Hons.) Horticulture | Intermediate in Agri. Sci. /PCB/ PCM/PCMB | 110 | 83 | 05 | - | 22 |
| 5 | B.Sc. (Hons.) Forestry | Intermediate in Agri. Sci. /PCB/ PCM/PCMB | 30 | 24 | - | - | 06 |
| 6 | B.Sc. (Hons.) Community Science | Intermediate in Art with Home Science as a subject /PCB /PCM/Agri. Sci. /PCMB | 40 | 32 | - | - | 08 |
| 7 | B.Sc. (Hons.) Food Nutrition and Dietetics | Intermediate in Art with Home Science as a subject /PCB /PCM/Agri. Sci. /PCMB | 30 | 24 | - | - | 06 |
| 08 | B.Tech. (Agricultural Engineering) | Intermediate in Agril./PCM/ PCMB/PCB | 60 | 48 | - | - | 12 |
| 09 | B.Tech. (Computer Science & Engineering) | Intermediate in PCM/ PCMB | 30 | 30 By AKTU | - | - | - |

| | | | | | | | |
|----|-----------------------------------------------|-----------------------------------------|------------|---------------|-----------|-----------|----------------------------------|
| 10 | B.Tech. (Mechanical Engineering) | Intermediate in PCM/ PCMB | 20 | 20 By AKTU | - | - | - |
| 11 | B.Tech. Biotechnology | Intermediate in Agril./PCM/ PCMB/PCB | 40 | 32 | - | - | 08 |
| 12 | B.F.Sc. (Bachelor of Fisheries Science) | Intermediate in Agri. Sci. /PCB/PCMB | 40 | 32 | - | - | 08 |
| 13 | B.V.Sc.&A.H. | Intermediate in /PCB/PCMB | 80 | 40 | 20 | 08 | 12 VCI |
| | | Total UG Programme | 842 | 615 | 63 | 10 | 142-ICAR & 12-VCI |

Number of Seats Post Graduate (Master's) Degree Programme Academic Year 2025-26

| S.N. | Course Name | Essential Qualification | Total Intake of the University | Total Seat UPCATET-2025 | | | ICAR Quota Seats 30% |
|--------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------|------|-----|----------------------|
| | | | | Normal | Paid | NRI | |
| College of Agriculture, Main Campus | | | | | | | |
| 1 | Biochemistry | B.Sc.(Ag.)/B.Sc.Ag. (Hons.) / B.Sc. (Hons.) Ag. / B.Sc. Hort./ B.Sc. (Hons.) Hort./B.Sc. (Hort.) Hons. (10+2+4 years degree) | 16 | 11 | - | - | 05 |
| 2 | Molecular Biology and Biotechnology | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc. (Hons.) Hort./B.Sc. (Hort.) Hons./B.Tech.(Biotech.)/ B.Sc. (Forestry) /B.Sc. (Hons.) Forestry) (10+2+4 years degree) | 18 | 13 | - | - | 05 |
| 3 | Plant Physiology | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. /B.Sc.(Hort.)/ B.Sc. (Hons.) Hort./ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons./B.Sc.(Forestry)/ B.Sc. (Hons.) Forestry (10+2+4 years degree) | 13 | 09 | - | - | 04 |
| 4 | Genetics and Plant Breeding | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag./B.Sc.(Hort.)/B.Sc. (Hons.) Hort./B.Sc. (Hort.) Hons./B.Sc.(Forestry)/B.Sc. (Hons.) Forestry (10+2+4 years degree) | 31 | 18 | 03 | 01 | 09 |
| 5 | Plant Pathology | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. /B.Sc.(Hort.)/ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons.B.Sc.(Forestry)/B.Sc. (Hons.) Forestry (10+2+4 years degree) | 21 | 14 | 01 | - | 06 |

| | | | | | | | |
|----|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-----------|-----------|-----------|
| 6 | Seed Sciences and Technology | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc.(Hort.)/ B.Sc. (Hons.) Hort./B.Sc. (Hort.) Hons./B.Sc.(Forestry)/ B.Sc. (Hons.) Forestry (10+2+4 years degree) | 20 | 13 | 01 | - | 06 |
| 7 | Agricultural Meteorology | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. /B.Sc.(Hort.) /B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons./B.Sc.(Forestry)/B.Sc. (Hons.) Forestry(10+2+4 years degree) | 13 | 09 | - | - | 04 |
| 8 | Soil Science | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag./ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons.B.Sc.(Forestry)/B.Sc. (Hons.) Forestry(10+2+4 years degree) | 23 | 15 | 01 | - | 07 |
| 9 | Entomology | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. /B.Sc.(Hort.) / B.Sc. (Hons.) Hort. / B.Sc. (Hort.) Hons.B.Sc.(Forestry)/B.Sc. (Hons.) Forestry (10+2+4 years degree) | 18 | 13 | - | - | 05 |
| 10 | Agronomy | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. (10+2+4 years degree) | 31 | 18 | 03 | 01 | 09 |
| 11 | Agricultural Economics | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag./B.Sc.(Hort.)/B.Sc. (Hons.) Hort./B.Sc. (Hort.) Hons./B.Sc. (Forestry)/B.Sc. (Hons.) Forestry (10+2+4 years degree) | 16 | 11 | - | - | 05 |
| 12 | Agricultural Extension Education | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc.(Hort.)/ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons./B.Sc.(Forestry)/B.Sc. (Hons.) Forestry/ B.F.Sc (10+2+4 years degree) | 16 | 11 | - | - | 05 |
| 13 | Agricultural Statistics | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. /B.Sc.(Hort.)/ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons./ B.Sc.(Forestry)/B.Sc. (Hons.) Forestry(10+2+4 years degree) with mathematics as a subject at 10+2 level | 11 | 08 | - | - | 03 |
| | Total | | 247 | 163 | 09 | 02 | 73 |



| | | | | | | | |
|------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|---|-----------|
| 1 | Agri Business Management | Bachelor's / or Master's degree in Agriculture or allied disciplines of Agriculture, Agril. Engg./Dairy Science/Dairy Technology/Fisheries/Food Science/ Food Technology/Forestry/ Home Science/ Community Science/Vegetable Science/Horticulture/Veterinary Science | 71 | 35 | 15 | - | 21 |
| College of Agriculture, Azamgarh Campus | | | | | | | |
| 1 | Agricultural Economics | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag./B.Sc.(Hort.)/B.Sc. (Hons.) Hort./B.Sc. (Hort.) Hons./B.Sc. (Forestry)/B.Sc. (Hons.) Forestry (10+2+4 years degree) | 02 | 02 | - | - | - |
| 2 | Agricultural Extension Education | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc.(Hort.)/ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons./B.Sc.(Forestry)/B.Sc. (Hons.) Forestry/ B.F.Sc (10+2+4 years degree) | 02 | 02 | - | - | - |
| | Total | | 04 | 04 | - | - | - |
| College of Horticulture & Forestry | | | | | | | |
| 1 | Vegetable Science | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc. Hort./ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons. (10+2+4 years degree) | 23 | 14 | 02 | - | 07 |
| 2 | Fruit Science | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc. Hort./ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons. (10+2+4 years degree) | 23 | 14 | 02 | - | 07 |
| 3 | Post-Harvest Management | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc. Hort. / B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons. (10+2+4 years degree) | 10 | 07 | - | - | 03 |
| 4 | Floriculture and Landscaping | B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. / B.Sc. Hort./ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons. (10+2+4 years degree) | 10 | 07 | - | - | 03 |
| 5 | Silviculture and Agroforestry | B.Sc. Forestry/ B.Sc. (Hons) Forestry /B.Sc. Hort./ B.Sc. (Hons.) Hort./ B.Sc. (Hort.) Hons./B.Sc.(Ag.)/B.Sc. Ag. (Hons.)/ B.Sc. (Hons.) Ag. (10+2+4 year Degree) | 17 | 12 | - | - | 05 |
| | Total | | 83 | 54 | 04 | | 25 |
| MCAET, Ambedkar Nagar | | | | | | | |
| 1 | Soil and Water Conservation Engineering | B.Tech. Agril. Engg. /Mechanical/Civil/Elect./Electronics | 05 | 03 | - | - | 02 |

| | | | | | | | |
|-------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|---|---|-----------|
| 2 | Irrigation and Drainage Engineering | B.Tech. Agril. Engg. /Mechanical/Civil/Elect./Electronics | 05 | 03 | - | - | 02 |
| 3 | Processing and Food Engineering | B.Tech. Agril. Engg. / Agric. & Food Engg./Mechanical/Civil/Elect./Electronics/Food Engg./Process and Food Engg./Chemical Engg. | 05 | 03 | - | - | 02 |
| 4 | Farm Machinery and Power Engineering | B.Tech. Agril. Engg./ Mechanical/Civil/Elect./Electronics/Production Engg. | 05 | 03 | - | - | 02 |
| 5 | Renewable Energy Engineering | B.Tech. Agril. Engg./ Agric. & Food Engg./Mechanical/Civil/Elect./Electronics/Production Engg./Food Engg./Process and Food Engg. | 05 | 03 | - | - | 02 |
| | Total | | 25 | 15 | - | - | 10 |
| College of Community Science | | | | | | | |
| 1 | Food And Nutrition | B.Sc.(H.Sc.)/B.Sc. Home Science (Hons.)/B.Sc. (Hons.) Community Science/ B.Sc. (Hons.) Food Nutrition &Dietetics (10+2+4 years degree) 3- year Bachelor degree holders are not eligible | 05 | 03 | - | - | 02 |
| 2 | Human Development and Family Studies | B.Sc.(H.Sc.)/B.Sc. Home Science (Hons.)/B.Sc. (Hons.) Community Science(10+2+4 years degree) 3- year Bachelor degree holders are not eligible | 03 | 02 | - | - | 01 |
| 3 | Resource Management and Consumer Science | B.Sc.(H.Sc.)/B.Sc. Home Science (Hons.)/B.Sc. (Hons.) Community Science(10+2+4 years degree) 3- year Bachelor degree holders are not eligible | 03 | 02 | - | - | 01 |
| 4 | Apparel and Textile Science | B.Sc.(H.Sc.)/B.Sc. Home Science (Hons.)/B.Sc. (Hons.) Community Science(10+2+4 years degree) 3- year Bachelor degree holders are not eligible | 03 | 02 | - | - | 01 |
| 5 | Extension Education and Communication Management | B.Sc.(H.Sc.)/B.Sc. Home Science (Hons.)/B.Sc. (Hons.) Community Science/ B.Sc. (Hons.) Food Nutrition &Dietetics (10+2+4 years degree) 3- year Bachelor degree holders are not eligible | 03 | 02 | - | - | 01 |
| | Total | | 17 | 11 | - | - | 06 |



| College of Veterinary Science and Animal Husbandry | | | | | | | |
|----------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|---|---|-----------|
| 1 | Veterinary Biochemistry | B.V.Sc. & A. H.(10+2+5 years/10+2+5½ years Degree) with OGPA 5.50 (5.00 for SC/ST) out of 10. The candidates must be registered with VCI, New Delhi or State Veterinary Council | 04 | 03 | - | - | 01 |
| 2 | Veterinary Anatomy | -do- | 03 | 02 | - | - | 01 |
| 3 | Animal Reproduction Gynaecology and Obstetrics | -do- | 07 | 05 | - | - | 02 |
| 4 | Veterinary Medicine | -do- | 07 | 05 | - | - | 02 |
| 5 | Veterinary Parasitology | -do- | 03 | 02 | - | - | 01 |
| 6 | Veterinary Pathology | -do- | 05 | 03 | - | - | 02 |
| 7 | Veterinary Microbiology | -do- | 03 | 02 | - | - | 01 |
| 8 | Veterinary Surgery and Radiology | -do- | 08 | 06 | - | - | 02 |
| 9 | Veterinary Public Health and Epidemiology | -do- | 03 | 02 | - | - | 01 |
| 10 | Animal Genetics and Breeding | -do- | 03 | 02 | - | - | 01 |
| 11 | Animal Nutrition | -do- | 07 | 05 | - | - | 02 |
| 12 | Veterinary Physiology | -do- | 04 | 03 | - | - | 01 |
| 13 | Livestock Production and Management | -do- | 06 | 04 | - | - | 02 |
| 14 | Veterinary Extension Education | -do- | 04 | 03 | - | - | 01 |
| | Total | | 67 | 47 | - | - | 20 |
| College of Fisheries | | | | | | | |
| 1 | Fisheries Resource Management | B.F.Sc. (10+2+4 year Degree) | 07 | 05 | - | - | 02 |



| 2 | Aquaculture | B.F.Sc. (10+2+4 year Degree) | 07 | 05 | - | - | 02 |
|---------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------|-----------|-----------|----------------------|
| | Total | | 14 | 10 | - | - | 04 |
| | | Total Master's Programme | 528 | 339 | 28 | 02 | 159 |
| Number of Seats Ph.D. Degree Programme Academic Year 2025-26 | | | | | | | |
| S.N. | Course Name | Essential Qualification | Total Intake of the University | Total Seat UPCATET-2025 | | | ICAR Quota Seats 30% |
| | | | | Normal | Paid | NRI | |
| College of Agriculture | | | | | | | |
| 1 | Genetics and Plant Breeding | M. Sc.(Ag.) in Gen. & Pl. Breeding (10+2+4+2 Degree Programme) | 15 | 08 | 02 | - | 05 |
| 2 | Seed Sciences and Technology | M. Sc.(Ag.) in Seed Science & Technology (10+2+4+2 Degree Programme) | 04 | 03 | - | - | 01 |
| 3 | Plant Pathology | M.Sc. (Ag.) in Plant Pathology(10+2+4+2 Degree Programme), (M.Sc.(Ag.) in Plant Protection degree holders are not eligible) | 10 | 07 | - | - | 03 |
| 4 | Entomology | M.Sc. (Ag.) in Entomology (10+2+4+2 Degree Programme) (M.Sc.(Ag.) in Plant Protection degree holders are not eligible) | 07 | 05 | - | - | 02 |
| 5 | Biochemistry | M. Sc. (Ag.) in Ag. Biochemistry / M.Sc. Biochemistry (10+2+4+2 Degree Programme) | 04 | 03 | - | - | 01 |
| 6 | Plant Physiology | M. Sc.(Ag.) in Plant Physiology/M.Sc. (Ag.) in Crop Physiology (10+2+4+2 Degree Programme) | 04 | 03 | - | - | 01 |
| 7 | Molecular Biology and Biotechnology | M.Sc. Ag. Biotechnology/ M.Sc.Biotechnology/M.Tech.(Bio technology) (10+2+4+2 Degree Programme) | 07 | 05 | - | - | 02 |
| 8 | Agricultural Meteorology | M.Sc.(Agril. Meteorology)/ M.Sc. (Ag.) in Agril. Meteorology (10+2+4+2 Degree Programme) | 03 | 02 | - | - | 01 |
| 9 | Agronomy | M.Sc. (Ag.) Agronomy (10+2+4+2 Degree Programme) | 11 | 06 | 02 | - | 03 |
| 10 | Soil Science | M. Sc.(Ag.) in Soil Science & Agril. Chemistry / M.Sc. (Ag.) in Soil Science (10+2+4+2 Degree Programme) | 10 | 06 | 01 | - | 03 |
| 11 | Agricultural Economics | M.Sc. (Ag.) in Agril. Economics / M.Sc. (Ag.) in Agril. Economics & Management (10+2+4+2 Degree Programme) | 06 | 04 | - | - | 02 |



| | | | | | | | |
|-----------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|----------|-----------|
| 12 | Agricultural Extension Education | M.Sc. (Ag.) in Agril. Extension / Extension Education/Agril.Communication/ Agril. Extension and Comm. (10+2+4+2 Degree Programme) | 07 | 05 | - | - | 02 |
| 13 | Agricultural Statistics | M.Sc. in Agril. Statistics/M.Sc.(Statistics) (10+2+4+2 Degree Programme) | 03 | 02 | - | - | 01 |
| | Total | | 91 | 59 | 05 | - | 27 |
| 1 | *Ph.D. in Agri-Business Management | Master in Agri-Business Management/Agricultural Marketing & Cooperation/Business Management with specialization in Agriculture Note: Master OGPA 6.50 (5.50 SC/ST) out of 10 or equivalent | 02 | 01 | - | - | 01 |
| College of Horticulture & Forestry | | | | | | | |
| 1 | Vegetable Science | M.Sc.(Ag.) Horticulture/M.Sc.(Ag.) Horticulture (Vegetable Science),/M.Sc. Horticulture (Veg. Sci.) /M.Sc. (Vegetable Science)(10+2+4+2 Degree Programme) | 11 | 08 | - | - | 03 |
| 2 | Fruit Science | M.Sc.(Ag.) Horticulture/M.Sc.(Ag.) Horticulture (Fruit Science)/M.Sc. (Fruit Science) (10+2+4+2 Degree Programme) | 11 | 08 | - | - | 03 |
| 3 | Post-Harvest Management | M.Sc.(Post Harvest Management) (10+2+4+2 Degree Programme) | 02 | 01 | - | - | 01 |
| 4 | Floriculture and Landscaping | M.Sc.(Floriculture and Landscaping) (10+2+4+2 Degree Programme) | 01 | 01 | - | - | - |
| 5 | Silviculture and Agroforestry | M.Sc. Forestry/ Agro-forestry/M.Sc.(Forestry) Silviculture and Agroforestry (10+2+4+2 Degree Programme) | 06 | 04 | - | - | 02 |
| | Total | | 31 | 22 | - | - | 09 |
| MCAET, Ambedkar Nagar | | | | | | | |



| | | | | | | | |
|-----------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|---|---|-----------|
| 1 | Processing and Food Engineering | M.Tech. in Agril. Engg. With specialization in Agricultural Processing Engineering/ Processing & Food Engg./Food Process Engg /Dairy Engineering/Post Harvest Technology (With specialization in Post-Harvest Engineering and Technology)/ Renewal Energy Engineering | 03 | 02 | - | - | 01 |
| 2 | Farm Machinery and Power Engineering | M.Tech in Agricultural Engineering/ Mechanical Engineering with specialization in Farm Machinery and Power/ Renewable Energy | 03 | 02 | - | - | 01 |
| | Total | | 06 | 04 | - | - | 02 |
| College of Community Science | | | | | | | |
| 1 | Food And Nutrition | M.Sc. in Food and Nutrition/ M.Sc. in Food Science and Nutrition/ M.Sc. in Food Nutrition and Dietetics and M.Sc. in the concerned subject (10+2+4+2 Degree Programme)M.A. (Home Science/Community Science) degree holders are not eligible | 03 | 02 | - | - | 01 |
| 2 | Human Development and Family Studies | M.Sc. (Home Science (HDFS)/ Community Science (HDFS) in the Concerned Subject(10+2+4+2 Degree Programme) M.A. (Home Science/Community Science) degree holders are not eligible | 02 | 01 | - | - | 01 |
| 3 | Resource Management and Consumer Science | M.Sc. (Home Science) Resource Management and consumer Science/M.Sc.(Community Science (Resource Management and consumer Science) in the Concerned Subject(10+2+4+2 Degree Programme) M.A. (Home Science/Community Science) degree holders are not eligible | 02 | 01 | - | - | 01 |
| | Total | | 07 | 04 | - | - | 03 |
| College of Veterinary Science and Animal Husbandry | | | | | | | |
| 1 | Veterinary Biochemistry | M.V.Sc. in the Concerned Subject | 02 | 01 | - | - | 01 |
| 2 | Animal Reproduction Gynaecology and Obstetrics | -do- | 04 | 03 | - | - | 01 |
| 3 | Veterinary Medicine | -do- | 04 | 03 | - | - | 01 |



| | | | | | | | |
|-----------------------------|-------------------------------------------|-------------------------------------------------------------------|------------|------------|-----------|---|-----------|
| 4 | Veterinary Parasitology | -do- | 02 | 01 | - | - | 01 |
| 5 | Veterinary Pathology | -do- | 03 | 02 | - | - | 01 |
| 6 | Veterinary Microbiology | -do- | 02 | 01 | - | - | 01 |
| 7 | Veterinary Surgery and Radiology | -do- | 04 | 03 | - | - | 01 |
| 8 | Veterinary Public Health and Epidemiology | -do- | 02 | 01 | - | - | 01 |
| 9 | Animal Genetics and Breeding | -do- | 03 | 02 | - | - | 01 |
| 10 | Animal Nutrition | -do- | 03 | 02 | - | - | 01 |
| 11 | Livestock Production and Management | -do- | 04 | 03 | - | - | 01 |
| 12 | Veterinary Extension Education | -do- | 02 | 01 | - | - | 01 |
| 13 | Veterinary Physiology | -do- | 02 | 01 | - | - | 01 |
| 14 | Veterinary Anatomy | -do- | 01 | 01 | - | - | - |
| | Total | | 38 | 25 | - | - | 13 |
| College of Fisheries | | | | | | | |
| 1 | Fisheries Resource Management | M.F.Sc. in Concerned Subject (10+02+04+02 years Degree Programme) | 03 | 02 | - | - | 01 |
| 2 | Aquaculture | M.F.Sc. in Concerned Subject (10+02+04+02 years Degree Programme) | 01 | 01 | - | - | - |
| | Total | | 04 | 03 | - | - | 01 |
| | Total Ph.D. Programme | | 179 | 118 | 05 | - | 56 |

315:1836 To consider and approve the proposal of Dean, College of Community Science to re-start the Laboratory Nursery School at earliest possible.

The proposal of Dean, College of Community Science to re-start the Laboratory Nursery School was placed for consideration and approval of Academic Council. The agenda approved as such.

Supplementary Agenda

- 315:1837** The proposal of Dean, College of Agriculture to start Ph.D. degree programme in the Dept. of Agri-Business Management from the session 2025-26.
The Academic Council discussed the proposal and unanimously agreed to start Ph.D. degree programme in the Dept. of Agri-Business Management with 02 seat from the session 2025-26.
- 315:1838** Discussion on Notification of UGC, New De!hi, 2025 regarding the Draft of minimum qualification for Appointment and Promotion of Teachers and Academic Staff and Measures for the Maintenance of Standards in Higher Education
Hon. Vice Chancellor directed to all Deans/Assoc. Dean to review the such draft with the faculties and submit the comments on such draft at earliest so that suggestions may be sent to UGC.
- 315:1839** Hon. Vice Chancellor suggested that where Professors are available in the department, there will be rotational Headship for encouraging the teaching and research work of the department.
Members of Academic Council agreed with the suggestion of Hon. Vice Chancellor.
- 315:1840** Hon. Vice Chancellor suggested to increase additional examination fee Rs. from Rs. 2000/- to 5000/- per course for unscheduled/out of semester courses.
The Academic Council had approved Rs. 2000/- per course for unscheduled/out of semester courses for repeater students it its meeting 298:1736. The Academic Council agreed with the suggestion of Hon. Vice Chancellor to increase additional examination fee Rs. 5000/- instead of Rs. 2000/- per course for unscheduled/out of semester courses.
- 315:1841** The Director, IQAC has suggested to create the post of Dean at College of Agriculture.
The Director, IQAC pointed out that during ICAR Peer Team visit, the Chairman and members has raised a query on the post of Dean which was not created at the time of sanctioning of the college, that was a part of Model Act of ICAR. Keeping in view of above, members agreed to raise a post of Associate Dean to Dean, College of Agriculture, Azamgarh and send a letter to the Govt. to create the post of Dean as per ICAR Model Act.

Approved

[Signature]
Registrar/Secretary 13.1.25
Academic Council

[Signature]
13.1.25
Vice-Chancellor/Chairman
Academic Council