



VIGNAN'S

FOUNDATION FOR SCIENCE, TECHNOLOGY & RESEARCH

(Deemed to be University) - Estd. u/s 3 of UGC Act 1956

R25

Academic Regulations

B.Sc. (Hons.) Agriculture

w.e.f. batch 2025-29

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PREFACE - R25

Change is the only permanent thing. The happening of Change implies continues morphing, - iterative refinement, leading to evolution. There cannot be an end in the process of evolution, however an imagined target could be the goalpost to drive the change. The regulation R-25 could be one such stage during the saga of transition in pursuit of quality in learning.

The focal point in higher education should be learning, which should serve as foundational premise for *unlearning*, *relearning* and *continuing to learn lifelong*. This ability for the creativity towards learning has got to be seeded and allowed to be sprouted by the mentors who would provide handholding and lead the potential and untapped youngsters to be able to think, because learning should imbibe thinking - **thinking logically; thinking on how to internalise, how to imbibe and then how to invent and implement.**

The regulation R-25, is in the sequel to R-22. As focused in R-22, R-25 aims to more effectively channelize the policies brought out in National Educational Policy - NEP 2020, into practice.

The anticipated challenges in store for the future, the agenda of accomplishing Sustainable Development Goals (SDGs) and the largely unexplored hidden treasure of Indian Knowledge System (IKS), if could be modulated through the carrier framework of NEP-2020, would be impactful in bringing out an eminent thinker in every genuine learner. And realising this objective is the motivation in bringing out VIGNAN's Regulation R-25.

ACADEMIC REGULATIONS, CURRICULUM AND COURSE CONTENTS

EXECUTIVE ABSTRACT

The Academic Regulations - R25, Curriculum, and Course Structure of VFSTR Deemed-to-be University are designed in alignment with NEP-2020, emphasizing continuous learning, continuous assessment, and competency-based education. These regulations build upon the experiences gained during the implementation of R-22 since AY 2022-23, which was also an exercise of inculcating and internalizing NEP-2020. Insights from R-22 have led to refinements in the curriculum, course structure, pedagogy, and assessment tools, resulting in a more mature, robust, and adaptive educational framework-R25.

The new course structure incorporates a two-module system, where Module-1 focuses on strengthening foundational knowledge and conceptual clarity, while Module-2 fosters higher-order thinking, problem-solving, and innovation. The curriculum adopts the **T-shaped learning philosophy**, balancing breadth (horizontal line) and depth (vertical line) in knowledge acquisition. The vertical line represents deep expertise in core agriculture domains, while the horizontal line encourages cross-disciplinary learning and adaptability, equipping students with both rich foundations and diverse competencies for research, industry, and entrepreneurship.

Furthermore, the program ensures an integrated and rigorous learning experience across agricultural sciences, natural sciences, social sciences, economics, and management domains. Rather than offering superficial exposure, the curriculum is designed to provide in-depth engagement in these areas. This fosters a truly holistic education that combines scientific understanding with socio-economic perspectives and practical application, thereby preparing students to address real-world challenges in agriculture and allied sectors. In the formulation of the curriculum and course structure, the recommendations and guidelines of the **ICAR Sixth Deans Committee** have been duly incorporated, ensuring national-level uniformity, academic rigor, and compliance with contemporary standards in agricultural education. In alignment with this vision, relevant concepts from the **Indian Knowledge System (IKS)** have been woven into a few courses, enriching modern scientific approaches with India's rich intellectual traditions. Additionally, all courses in the curriculum are mapped with relevant **Sustainable Development Goals (SDGs)**, reaffirming VFSTR's commitment to fulfilling the SDGs through education.

To provide greater academic flexibility, R25 introduces a provision of '**Creative Work-as-Part of a Project**', enabling students to substitute a conventional elective with creativity driven exploration that leads to research-based outcomes such as peer-reviewed publications, patents, or innovative projects. This initiative encourages students to engage with impactful research and real-world problem-solving, fostering a culture of innovation and intellectual contribution. Additionally, experiential learning has been infused throughout the curriculum, ensuring students gain hands-on experience through industry collaborations, prototype development, and applied research initiatives. Experiential learning is seamlessly integrated into the academic structure, with assessments aligned to capture the depth and authenticity of learning through experience.

The assessment strategy is structured into six formative assessment stages (Pre-T1, T1, T2, T3, T4 & T5), ensuring a **continuous and comprehensive assessment model** that progressively aligns with revised Bloom's Taxonomy and the T-shaped learning framework, reinforcing Learning–Thinking–Understanding–Skilling–Applying–Creating at each stage. The emphasis on continuous assessment is driven by the principle of continued learning, where students are consistently engaged with concepts and skills throughout their academic journey.

The four-year B.Sc. (Hons.) Agriculture program follows a flexible and student-centric approach, incorporating multiple entry and exit at different levels. The student/s will have the option to exit after the 1st year. The student has to complete 10 weeks of internship (10 credits) after 1st year (2 semesters) to be eligible for award of UG-Certificate in Agriculture. The student has another option to exit after the 2nd year. The student has to complete another 10 weeks of internship (10 credits) after 2nd year (4 semesters) to be eligible for award of UG-Diploma in Agriculture. After four years of study, the student will be awarded UG degree in concerned discipline. No exit after 3 years (6 semesters) is recommended considering the professional nature of the courses. The lateral entry at 3rd semester will be for the candidates having UG-certificate in Agriculture or those who have completed Diploma (3 years course after 10th) in recognized HAEIs. The lateral entry in 5th semester will be for candidates who have completed UG-Diploma in Agriculture. Additionally, for students who wish to progress at a slower pace, a spillover period of up to three additional years is available for degree completion, ensuring academic flexibility without compromising learning outcomes. By integrating multidisciplinary exposure, skill-based learning, and holistic assessment, VFSTR reaffirms its

commitment to developing well-rounded, future-ready professionals in accordance with NEP-2020's transformative vision.

Salient features of the regulation

- Multidisciplinary
- Continuous learning
- Continuous assessment
- T-Shaped learning philosophy
- Experiential learning programme
- Multiple entry and exit options
- Sabbatical Semester Drop option to pursue innovation, incubation, entrepreneurial and advanced exploratory activities and subsequent re-entry

1 INTRODUCTION

This document contains the academic regulations, scheme of assessments, curriculum, detailed syllabi, course contents with text / reference books recommended, course outcomes, skills expected to be acquired and the projects / assignments that are to be performed for each course for the conduct of 4-year B.Sc. (Hons.) Agriculture degree programme. The B.Sc. (Hons.) Agriculture degree programme is offered by Vignan Institute of Agriculture and Technology under School of Agriculture and Food Technology.

1.1 Definition

For the purpose of R25 regulation, definitions as follows shall apply:

- **“Degree”** shall refer to the B.Sc. (Hons.) Agriculture Degree Program.
- **“Course”** shall refer to such Course(s) for which a student shall earn Credits after due assessment as per the laid provisions. Project is also treated as a Course.
- **“Academic activities”** shall refer to the activities like Lecture-L (Physical Lecture Session), Transactions (Tutorial)-T (Participatory discussion / Self-Study / Desk Work / Quiz / Seminar Presentation, etc. activities that make the student absorb & assimilate the delivered contents effectively) and Practical / Practice Sessions-P (includes Hands on Experience / Lab experiments / Field Studies / Case Studies etc. activities that enable the student to acquire the requisite skill).
- **“Credit”** refers to a unit of measurement assigned to courses based on the weekly instructional hours. Typically, one credit corresponds to one hour of lecture (L) or two hours of transaction (T) / practices (P) sessions per week.

- “**Continuous Assessment**” shall refer to the assessment of the student spread over the entire semester on the various constituent components of the prescribed course.
- “**Semester**” shall refer to a period covering the two assessment periods viz Formative and Summative Assessment period. A semester would generally be spread over twenty weeks.
- “**Deeksharambh**” refers to a course offered at the start of first year first semester for a duration of two weeks. This will create a platform for students to learn from each other’s life experiences, help for cultural Integration of students from different backgrounds, know about the operational framework of academic process in university, instilling life and social skills, social awareness, ethics and values, team work, leadership, creativity, etc.
- “**Course Drop**” shall refer to a student having to undertake a ‘Repeat (R)’ of the Course(s) not being able to complete the Credit requirements of the Course(s), under the conditions stipulated in the regulation.
- “**Supplementary Examinations**” shall refer to the examination(s) conducted to allow the student to appear in the un-cleared / Incomplete (I) Semester - End summative assessment component.
- “**Blank Semester**” shall refer to a Semester in which a student either does not register for any course at the beginning of the Semester OR chooses to DROP all courses OR is so compelled to DROP all the courses, as the case may be.
- “**Semester Drop**” shall refer to availing a blank semester. However, if drop is availed to pursue a creative extension activity, then it is defined as **semester sabbatical**.
- “**Spill Over Semester**” shall refer to the additional semester(s) beyond the completion of prescribed normal semesters.
- “**AAA Section**” shall refer to the Academics, Assessment and Award Section of the Institute.
- “**Attendance**” refers to the Physical personal presence in an academic activity session.
- “**Summer Semester**” refers to a Semester that is scheduled to be held during the intervening period of Even and Odd Semester (*i.e.* Summer Vacation period).
- “**Themes**” refer to the courses offered in a particular stream other than offered by the regular departments, for example NCC, Entrepreneurship, Fitness and Living, *etc.*

- **“School”** refers to a division of institute dealing with two or more specific areas of discipline / study comprising of the departments related with exclusive emphasis on trans-disciplinary research.
- **“Department”** refers to a division of institute dealing with a specific area of discipline / study.
- **“HoD”** refers to the Head of the respective Department, where the student is enrolled for his / her Branch of Study.
- **“Center”** refers to a structured unit within the school / department established with the purpose to carry out advanced research.
- **“Grade Point”** refers to the quantification of the performance of a candidate in a particular course as defined herein.
- **“SGPA”** refers to the Semester Grade Point Average and is calculated as detailed in the regulations subsequently.
- **“CGPA”** refers to the Cumulative Grade Point Average and is calculated as detailed in the regulations subsequently.
- **“Division”** refers to the Division awarded to the student as per the mechanism detailed in the regulations subsequently.
- **“Internship”** refers to onsite Practical Training offered by reputed companies / Institutions, in India or abroad. To be undertaken with (or seeking) prior approval of the respective HoD.
- **“Project”** refers to a course executed by a candidate on a specific research problem / product or process development at VFSTR / any organization of repute. To be undertaken with (or seeking) prior approval of the respective HoD.

1.2 Academic Administration

The academic programmes of VFSTR are governed by the rules and regulations approved by the Academic Council from time to time. The various academic activities of B.Sc. (Hons.) Agriculture are conducted following a fixed time schedule duly approved by the Academic Council in line with the ICAR 6th Dean’s Committee guidelines. The academic activities of VFSTR are followed meticulously as specified in the academic calendar as approved by the Academic Council. This academic calendar is shared with all the stake holders well before the beginning of the respective academic year. The curriculum and the course contents of all the programmes are discussed by the respective Board of Studies (BoS), analyzed and recommended for implementation. The Academic Council, being the

highest statutory body, chaired by the Vice-Chancellor, meets four times a year and discusses, suggests and approves all the important academic matters related to curriculum and course contents in particular including the recommendations of BoS. The intended revision in regulations (R25) was accepted and recommended by the Academic Council in its 40th meeting on 22-02-2025.

1.3 Program Duration

For B.Sc. (Hons.) Agriculture, the regular courses including theory and practical are offered over a period of four years in eight semesters. The normal duration to complete the B.Sc. (Hons.) Agriculture program is four years. Additionally, students can benefit from the Extended Degree Program, availing a spill over period for 3 years, allowing a maximum duration of seven years to complete the B.Sc. (Hons.) Agriculture programme at a slower pace if he / she desires.

1.4 Courses and Credits

The term course is used in a broader sense to refer to so called papers such as ‘theory subject’, ‘laboratory’, ‘Student READY Programme’, ‘Project Work’ etc. A course can be of theoretical and/ or of practical nature, and certain number of credits are allotted to it depending on the number of hours of instruction per semester. For a course offered in a semester, one hour of lecture (L) instructions carried out in a week is considered equivalent to one credit, whereas two hours of practical (P) sessions done in a week are considered equivalent to one credit respectively. Depending on the course two hours of tutorial (T) sessions may be considered equivalent to one credit. A student earns these credits when he/she successfully completes the course.

1.4.1 Content Delivery of a Course

Content delivery of a Course in the B.Sc. (Hons.) Agriculture Degree Program shall be through, either or all, of the following Methods:

- i. **Lecture** - refers to Lecture Session(s) through classroom contact session wherein students will learn by listening. Denoted by “L”.
- ii. **Tutorial** - refers to transaction(s) consisting of Participatory discussion / Self-study / Desk work / Brief presentations by students along with such other novel methods that enable a student to efficiently & effectively absorb and assimilate the contents delivered in the lecture sessions. Denoted by “T”.
- iii. **Practice** - refers to Practice / Practical sessions and it consists of Hands-on-Experience / Laboratory Experiments / Field projects / Case Studies / Minor /

Major Project, that equip the students to acquire the much required skill component. Denoted by “P”.

1.5 B.Sc. (Hons.) Agriculture Degree

All students formally and conventionally enroll for B.Sc. (Hons.) Agriculture degree programme. They have to earn **185** credits for the award of degree as specified in the Curriculum, wherein 185 credits shall be referred as ‘Graduating credits’ and assigned towards courses such as Core Courses, electives, Ability Enhancement Courses (AEC), Multi-Disciplinary Courses (MDC), Value Added Courses (VAC), Skill Enhancement courses (SEC), Internship/ Student READY/ Project work, Basic Sciences, Basic Engineering and binary graded. Additional 10 credits are for online courses, student will make his own planning and execution of online courses with intimation to the School Dean.

1.6 Composition of an Academic year

An academic year is composed of an Odd semester (20 – 22 weeks), an Even semester (20 – 22 weeks) and a Summer semester (6 – 8 weeks). The regular semester that begins in July / August is known as odd / first semester and the one that begins in December / January is known as even / second semester (Figure 1). The instructional days for a regular semester shall be a minimum of 95 working days exclusive of days earmarked for summative assessment. However, the first-year academic calendar varies slightly to accommodate the ‘Deeksharambh’.

YEAR OF 12 MONTHS											
1	2	3	4	5	6	7	8	9	10	11	12
July/ Aug.	Aug./ Sept.	Sept./ Oct.	Oct./ Nov.	Nov./ Dec.	Dec./ Jan.	Jan./ Feb.	Feb./ Mar.	Mar./ Apr.	Apr./ May	May/ June	June/ July
ODD SEM/ FIRST SEM					EVEN SEM/ SECOND SEM					SUMMER SEM	

Figure 1: Distribution of semesters during an Academic Year.

1.6.1 Before the commencement of the semester, a candidate has to pay the stipulated tuition fee and submit an application detailing the courses he / she intended to register, valid for that respective Odd / Even semester. The maximum number of credits per semester will be 25 credits. The intended semester wise coverage will be as presented in the curriculum.

1.6.2 Summer semester is a short duration semester program that will be generally conducted during the semester break between even semester and odd semester. The students having

'R' (Repeat grade) courses may register for the course work during this semester to get a chance for successfully completing the 'R' courses. In general, supplementary assessments are conducted in the later part of the summer semester. However, the courses offered in summer semester and the number of courses a student can register are subjected to academic and administrative convenience. A student may register up to a max. of 16 credits in a summer semester.

1.7 Semester wise provisions

A student may register for a max of 25 credits per semester as prescribed or otherwise he/she may include the Repeat courses in the event of having not successfully completed a course or courses in the earlier semester. However, a student may also opt to go in a slower pace to earn the credits less than the prescribed max of 25, including even 'Dropping' a semester for special reasons.

It should be clearly underscored that a candidate should on priority register for Repeat (R) credits if any, during a regular semester, within the said scope of 25 credits; in case he / she cannot be sure of completing the 'R' credits in Summer semester.

1.7.1 During the first four years from the date of admission to B.Sc. (Hons.) Agriculture, a candidate has to pay the semester / annual fees as prescribed irrespective of the less number of credits / semesters that he / she would register or even opt to Drop a semester.

1.7.2 If a candidate gets into spill over semester beyond four years up to a maximum of seven years he / she has to pay semester fee proportional to the credits that he/ she registered in that spill over semester as prescribed from time to time.

1.7.3 A candidate has to pay additional fee proportional to the number of credits for registering in a summer semester as prescribed from time to time.

2. CURRICULUM

The curriculum follows the guidelines given by the ICAR Sixth Deans Committee and encompasses theory courses, practical courses, and theory courses integrated with practical sessions. Every course offered will be designated in a L-T-P-SL structure. The theory courses comprise of L (and / or T & P hours) whereas the practical courses include instructions (T) and practical sessions (P). Amalgamation of theory courses with practical sessions is predominantly seen in this curriculum. The 'SL' represents the expected self-learning hours (to be carried out by each student) in a particular course.

2.1 Distribution of credits

The overall distribution of credits for various categories of courses in the curriculum of B.Sc. (Hons.) Agriculture programme is represented in Table (1) as given below.

Table 1: Credits Distribution for Various categories of courses

Category of Courses	Number of Credits	Percentage of Credits (%)	ICAR Sixth Deans Committee
Core Courses (CC)	92	49.72	50.82
Electives	20	10.81	11.04
Multi-Disciplinary Courses (MDC)	13	7.02	4.97
Value Added Courses (VAC)	6	3.24	3.31
Ability Enhancement Courses (AEC)	8	4.32	4.41
Skill Enhancement Courses (SEC)	12	6.48	6.62
Internship/ Student READY/Project work	20	10.81	11.04
Binary graded	4	2.16	2.20
Online Courses	10	5.40	5.52
Total	185	100	100

2.2 Organization of course contents

Courses offered in the program are composed of two modules, covering all the course contents required for a candidate to obtain knowledge and skill. Module-1 is divided into two units, focusing on the 'Fundamentals and Broad Perspective' of the course while also introducing basic applications to establish a practical context. In contrast, Module-2 is divided into three units, which encompass the extension and advanced topics of Module-1. Both modules will include a separate list of suggested transactions or practices tailored to its content. These transactions / practices are essential for validating and applying the knowledge gained during Lecture sessions.

Module-1 may be completed within 5 to 6 weeks, while Module-2 may require 9 to 10 weeks. By the end of each module a candidate must be in a position to translate his/ her L-based knowledge into P-based skill as prescribed in the curriculum. Individual formative

assessment shall be in place for each module and a single semester-end summative assessment for the course composed of both the modules.

The course contents are mapped with relevant Sustainable Development Goals (SDGs), ensuring alignment with global sustainability objectives. Additionally, where authenticated information is available, Indian Knowledge System (IKS) topics are incorporated into the curriculum.

Each course must have 4 to 6 course outcomes (COs) mapped to relevant program outcomes (POs), aligning with the revised Bloom's Taxonomy levels 3, 4, 5, and 6 ensuring progressive cognitive development. Furthermore, every course has at least one mandatory textbook and two to three reference books to provide students with credible and in-depth learning resources.

2.3 Prerequisite Knowledge

Wherever prerequisite knowledge is mentioned, a student must register for the required courses covering the specified content before he/she register in a higher-level course. There are two types of prerequisites: for some courses, successful completion of the prerequisite (i.e., earning credits) is mandatory before registration in the higher-level course; for others, completion of formative assessments in the prerequisite course is sufficient, and students become eligible to register for the higher-level course as long as they do not have an 'R-grade' in the prerequisite course.

3. NATIONAL CREDIT FRAMEWORK / CHOICE BASED CREDIT SYSTEM

B.Sc. (Hons.) Agriculture programme comprises of a set of courses - Core Courses, Electives, Ability Enhancement Courses (AEC), Multi-Disciplinary Courses (MDC), Value Added Courses (VAC), Skill Enhancement courses (SEC), Internship/Student READY/Project, Basic Sciences, Basic Engineering, Binary Graded and Online Courses. VFSTR offers flexibility for students to choose courses of their choice and obtain the credits satisfying the minimum credits criterion in each category as given in Table (1).

3.1 Core Courses (CC)

Core courses are individualized for B.Sc. (Hons) programme, and they are mandatory for every student. These are designed to offer the essential fundamental knowledge and skills required for the programme.

3.2 Electives

During the Seventh Semester, students shall register for 20 credits from a basket of elective courses, each carrying 4 credits. These elective courses are designed to provide students with opportunities to gain advanced knowledge and specialization in frontier areas of Agricultural Science. The University provides flexibility to offer additional elective courses as deemed necessary, based on academic requirements, regional relevance, and emerging areas of study. The objective of this provision is to enable students to acquire a deeper understanding and focused expertise in a chosen field.

3.3 Ability Enhancement Courses (AEC)

Ability Enhancement Courses (AEC) are designed to strengthen essential competencies that support both academic success and professional growth. They include communication skills, computer programming, physical education, first aid, yoga practice, meditation, and participation in NSS/NCC. Together, these courses build the personal effectiveness, discipline, and social responsibility needed for agricultural engineering professionals.

3.4 Multi-Disciplinary Courses (MDC)

Multi-Disciplinary Courses (MDC) are offered in the first, second, and fourth semesters to broaden students' learning beyond the core agricultural engineering curriculum. Drawn from areas such as basic sciences, humanities, social sciences, and management, these courses provide early exposure to diverse domains and foster cross-disciplinary thinking. By integrating perspectives from outside their parent discipline at this formative stage, students build a wider academic foundation and develop the ability to approach agricultural challenges in a holistic manner.

3.5 Value Added Courses (VAC)

Value Added Courses (VAC) complement the formal curriculum by providing contextual knowledge and perspectives that extend beyond technical training. They include courses such as Environmental Studies and Disaster Management in the first semester, and Agricultural Informatics and Artificial Intelligence in the second semester. By addressing contemporary issues and emerging technologies alongside ethical and societal concerns, these courses help students develop broader awareness and prepare them to contribute responsibly to both agriculture and society.

3.6 Skill Enhancement Courses (SEC)

Skill Enhancement Courses are intended to equip students with practical, industry-relevant skills that strengthen their employability and entrepreneurial capabilities. Covering areas

such as repair and maintenance of equipment's and systems, these courses emphasize application-oriented learning. Delivered largely through practical components, SECs ensure that students graduate with hands-on proficiency and readiness for real-world agricultural engineering challenges.

3.7 Internship/ Student READY/Project

In the 8th semester of the program the major focus has been on strengthening of the knowledge and skill for developing confidence of the students to take entrepreneurship as their future career. For this they will undergo an advanced skill enhancement through Student READY: RAWE/ Industrial Attachment /Experiential Learning / Hands-on Training/ Project Work / Internship. A student will select option/s on choice to complete the degree and pursue future career with 20 credits. Each student will be attached to a mentor either from the institution or from an organization/ industry. A university or a college will have the freedom to select the options as referred above.

The procedure for obtaining the placement and allocation of the same to the students are as per the University defined norms outlined in the 'RAWE / AIA / ELP' manual. RAWE programme report should be submitted periodically and finally a detailed RAWE report should be submitted duly certified by a mentor.

Performance in RAWE / AIA / ELP will also be assessed in the modular framework for both formative and summative assessments. The details of Student Ready are furnished in a separate Manual.

Under the "Creative Work-as-Part of a Project" category, students must earn up to 2 credits as part of projects through notable academic and professional achievements such as research paper publications, book chapters, patents, presentations (oral/poster), global certifications, and internships. This initiative encourages creative and holistic exploration of academic and professional avenues, fostering deep exploration of specialized fields. This provision applies between the 4th and 8th semesters. A range of 1 to 2 credits shall be awarded to the student's based on the significance of contributions. Students can earn credits through a single activity or by accumulating credits from multiple activities. The exact allocation of full or partial credits depends on the student's level of contribution and will be decided by department-level committee chaired by Head of the department.

3.8 Binary Graded courses

3.8.1 Deeksharambh (Induction-cum-foundation course)

A course entitled “Deeksharambh” (0+2) (Non-gradual) will be offered at the start of first semester for a duration of two weeks. This will create a platform for students to learn from each other’s life experiences, help for cultural Integration of students from different backgrounds, know about the operational framework of academic process in university, instilling life and social skills, social awareness, ethics and values, team work, leadership, creativity, etc. It will also help in identifying the traditional values and indigenous cultures along with diverse potentialities both in indigenous and developed scenario. There will be sessions by alumni, business leaders, outstanding achievers in related fields, people with inspiring life experiences as well as the University academic and research managers.

3.8.2 Educational Tour

University includes education tour as a part of the curriculum to provide students the joy of discovery and opportunity to learn new things through travel. Education tours are a great way for students and educators to absorb, interact and to grasp theory practically.

3.9 Online courses / MOOC

Credits for online courses are earned primarily through BoS-approved MOOCs on the SWAYAM platform, ensuring flexibility and access to diverse learning resources. This promotes self-learning and exposes students to emerging knowledge domains beyond the conventional curriculum. To support students, VFSTR has constituted a central “Online Course Committee” with departmental representatives to guide course selection and assist in the completion process. Through this framework, students are encouraged to adopt innovative learning approaches and supplement their classroom learning with nationally recognized online courses.

4. ATTENDANCE

It is mandatory for the student to attend the course work in each semester as per the academic schedule of that semester. VFSTR expects 100% attendance. However, the attendance in each course shall not be less than 75 % of the aggregate of all L, T, P sessions conducted in that course.

- a) The attendance calculations will be periodically reviewed at the end of every 4 weeks. The details of attendance status will be shared with the parents / guardian. The final status of attendance will be reported at end of 15th week granting the advantage of the attendance for the 16th week for the purpose of attendance shortage calculations.

- b) The shortage of attendance may be condoned up to 10% on the ground of ill-health, social obligations, participating / representing in sports/cultural events, placement activities etc.
- c) Documentary evidence like medical reports and certificates issued by concerned bodies is to be produced on time as support for the attendance shortage due to ill-health. These cases are subjected to the scrutiny of a committee constituted for this purpose by the Vice-Chancellor. The decision of the committee shall be final.
- d) Prior approval has to be taken from the HoDs for the other types of leaves.
- e) The courses where the student shortage of attendance was not condoned shall be considered as 'Repeat' category courses and will be under 'R' grade in the student's semester transcript. Student should re-register for these courses during the summer semester or whenever the course is offered next time during regular semesters. These re-registrations are subjected to the regulations at the time of re-registration. In case of core courses, the same core has got to be re-registered. However, in case of an elective a candidate may exercise a choice of choosing different elective in place of 'R' graded elective.

The students who are put into 'R' grade will not be allowed to take up the L-based summative assessment in that semester. In case due to lack and/or delay in information, if he/she appears for the summative assessment in that course, office of AAA is empowered to cancel the attended assessments. The scores obtained either in formative or summative assessment will not be considered for grading.

5. ASSESSMENT

Teaching-Learning and Assessment should go hand in hand and complement each other. Continuous assessment plays a vital role to enable the student to get synchronized with the teaching-learning process. Assessment mechanism adopted in the institute is aimed at testing the learning outcomes in tune with the outcome based model of education. The focus is thus on assessing whether the outcomes are realized by the end of the course.

The performance of a student in each course is assessed on a continuous basis during the semester through various in-semester and end-semester assessment models. The marks awarded through continuous assessment are referred to as Formative assessment marks. The marks awarded through end-semester tests are referred to as Summative assessment marks. Both the formative and summative assessment marks are considered for awarding the final marks and the grade point in a particular course.

5.1 Marks distribution

5.1.1 For courses having both L and T/P components

For each course, the maximum sum of formative and summative assessment marks put together is 100, in the ratio of 60:40, respectively. Furthermore, the 40 marks allocated for the summative assessment is for L-based assessment only (Figure 3a).

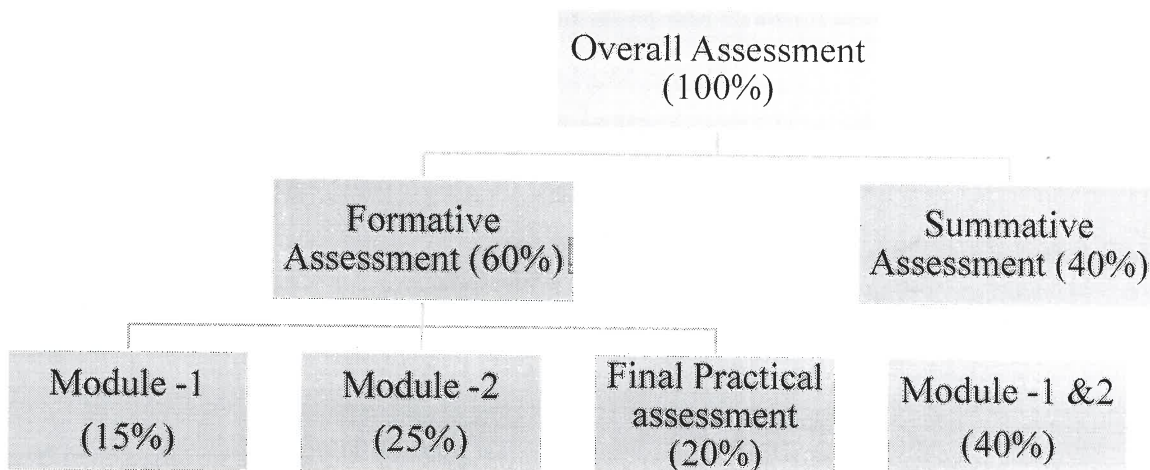


Figure 3a: Categories of assessments in place for R25.

5.1.2 For courses with L or P component only

For each course, the maximum sum of formative and summative assessment marks put together is 100, in the ratio of 50:50, respectively. Furthermore, the 50 marks allocated for the summative assessment for L or P-based courses only (Figure 3b).

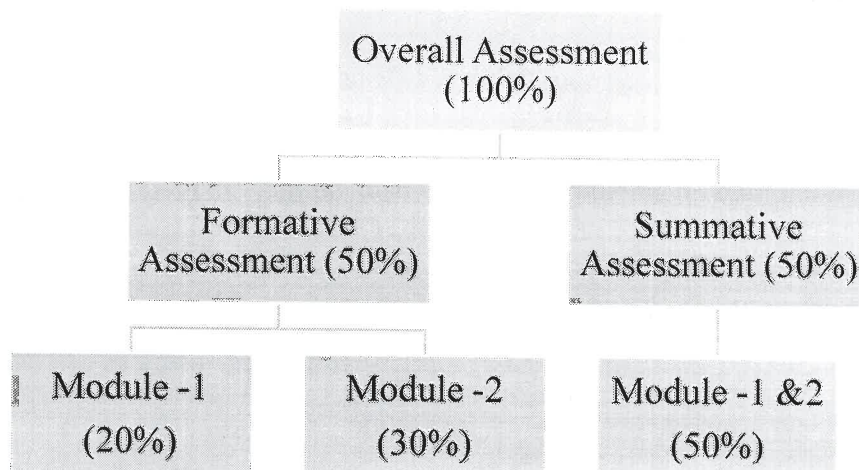


Figure 3b: Categories of assessments in place for R25.

5.2 Qualifying criteria

To be declared successful in a course, a student must secure at least a grade 5.0 in a scale of 10 based on the total maximum marks which is inclusive of formative and summative assessment. The students should also get 35% from the maximum marks allotted for

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formative assessment and 50% from the maximum marks allotted for summative assessment.

The hierarchy of qualifying criteria is as follows:

- i. Attendance compliance should be 75% or within condonable range; else the candidate is put into 'R' grade.
- ii. In formative assessment, a candidate should secure a minimum of 35% *i.e.* 21 marks out of 60 for L+T/P courses (or) 17.5 marks out of 50 for L or P based courses; else the candidate is put into 'R' grade.
- iii. In summative assessment, a candidate should secure a minimum of 50% *i.e.* 20 marks out of 40; else the candidate is put into 'I' (Incomplete) grade.
- iv. Collectively the candidate should secure a min. grade of 5.0 in a scale of 10 after relative grading (section 7); else the candidate has to choose either 'R' or 'I' grade duly being counselled.

The candidates with 'R' grade should re-register for 'R' courses either in Summer semester or in a regular semester as and when the courses are offered. The candidates in 'I' grade are allowed to appear for supplementary summative assessment whenever the semester-end assessments are conducted.

To assess Student READY programme projects / special courses, not fitting into the categories described here, a suitable assessment procedure will be evolved in consultation with experts of that area and adjudicated by the committee constituted for that purpose. The decision given by the committee will be final. The appended assessment schemes shall be announced by the course coordinator during the commencement of the course.

5.3 L-based courses integrated with P/T

5.3.1 Formative Assessment

The scheme of formative assessment is designed to promote the continuous learning. Scheme consists of assessments planned at institute level and assessment that may be scheduled by the course instructor. Institute level assessments shall be scheduled by the office of AAA. Respective Faculty Member(s) shall declare the schedule of Continuous Laboratory Assessments (CLA), Quiz, Tutorials, Assignments, Seminars, Discussions, etc. Some of the components may also however take place in an unscheduled manner like Surprise Tests. However, students shall be made aware of the assessment modalities that are going to be followed in a course by the faculty, under information to the HoD.

To monitor the progress of students, continuous assessment comprising of six targets (Pre-T1, T1, T2, T3, T4 and T5) is advocated for a maximum of 40 marks. Students in each section are randomly grouped into batches comprising of 3 to 4 members. These batches remain same for all courses and also for the P-sessions in the courses in that semester and are created in the beginning of that semester. The suggestive modality of evaluation of five targets is listed here under:

- a) **Pre-T1** shall be conducted once in module-1 and twice in module-2 by course instructor as classroom test / assignments. Assignments may cover pre-announced modular bank problems or broad concepts covered during the L-sessions, with a weightage of 10 marks.
- b) **Module -1-T1:** As outlined in Section 2.2, Module-1 is conducted over a shorter duration, emphasizing the fundamentals and broad perspectives of the course. In tune with this, the assessment could be based on Revised Bloom's Taxonomy Levels 1, 2, and 3, with an emphasis on remembering (recalling), understanding, and applying. To assess these skills, Module-1 T1 will be a paper-based, proctored test conducted for 90 minutes and graded for 30 marks. The question paper will consist of two 5-mark questions and two 10-mark questions. There will be no module bank for this module. The test will be held between the 34th and 36th days after commencement of the course, typically around the 6th week.
- c) **Module -2-T1:** T1 for module-2 commences by the announcement of module bank containing 10 problems covering the course contents of the module. Nature of problems in the module bank shall be at the level of creative / exploratory / design / thought provoking covering the complete syllabus of a module at somewhat advanced / challenging level. The purpose of creating module bank of 10 problems is to assign one problem each to 2 batches of 3 - 4 members. The purpose of assigning one problem to two batches is to create a healthy competitive spirit between the two batches. During 7th week of module-2, T1 consisting of two parts: A and B shall be conducted.

Part A consists of one random problem from the module bank and vary from batch to batch. All the questions in the module bank shall be distributed among students and students shall know the question to be answered only on the day of test in the examination hall.

Part B consists of one common problem at fairly application/ advanced level (**not at all prior notified**) from outside the module bank for all the students.

T1 shall be paper based and proctored test for a period of 90 min (maximum) which shall be assessed for 20 marks.

For the students who for justifiable reasons could not attend the classroom test on the scheduled day, a re-test maybe conducted. However, Part-B will contain a new question and Part-B will have higher weightage than part-A or full weightage could even be allotted for Part-B in such an event.

- d) **T2:** Immediately follows Module -2-T1. Students in a specified batch who now have received the same question during T1 will work further on that problem for T2.

T2 is primarily an extension of problem received in T1 for carrying out validation study: Case studies / Simulations / Experimentation. Each batch shall interact with the course instructor to finalize the nature of validation and expected to complete the exercise within 10 to 12 days after T1.

Course instructor should ensure assigning a different case study / a different scope for validation study for each batch in case the same problem is assigned to two batches.

Course instructor shall assess every student in a batch for a max. of 10 marks based on his observation, interaction and/or reviewing (based on at least two reviews).

- e) **T3:** T3 shall be conducted during the last week of each module. Student batches are expected to submit a report, clearly documenting the work executed during T2. The report should be in IEEE / APA format and additionally a voice in-built PPT should be prepared and submitted.

The report and presentation shall be assessed by the course instructor for 10 marks for every student. In certain cases, a course instructor can call for a physical presentation also by a batch.

- f) **T4:** T4 is a comprehensive test covering contents of both the modules conducted for 30 min. comprising of 40 multiple choice questions (MCQs) covering the holistic content of both the modules. T4 shall be evaluated for a max. of 20 marks @ ½ mark for each question. T4 will be conducted in ON-LINE mode.

When the test is administered online, every student receives the questions in shuffled sequence and also the choices in shuffled sequence. Therefore, the choice like both 'a' & 'b' above. Neither 'a' nor 'b', all the three a, b, c will not be set.

g) **T5:** T5 assessment is based on Practice or Tutorial assignments. Implementation, Report presentation and Discussion shall happen in a continuous mode throughout the module period. At least 4⁵ such continuous lab practice assessments (CLPA) / assignments per module shall be conducted by course instructor. The marks will be 5 marks per assignment. *From first Module - 3
Module 2 - 5*

h) The scores of the targets are to be normally announced within three working days on completion of the assessment and the performance is to be discussed in the class.

i) **The total marks for module-1 is 45 – Pre-T1 (5), T1 (20) and T5 (20)**

j) **The total marks for module-2 is 75 - Pre-T1 (10), T1 (20), T2 (5), T3 (5), T4 (15) and T5 (20).**

k) **Final practical assessment:** the final practical assessment to be conducted after the completion of Module 2 and before the commencement of the summative assessment. The assessment is to be conducted for 50 marks covering the all practices from the course. The total marks of 50 *suitably mapped down* to a max. of 20 marks.

l) The total marks for Module 1, Module 2 (M1 + M2 = 40) and Final practical assessment (20) together considered for a max. marks of 60. The lead instructor, in consultation with the HoD, will review the scaled-down marks and determine a suitable mapping. The finalized mapping approach must be shared with Dean AAA for documentation.

m) The marks scored in Module-1 should be entered / submitted latest by 7th week and of Module-2 latest by 16th week of the semester. The consolidated score, after scaling down and suitable mapping to a maximum of 60 marks, must be submitted by the 18th week to facilitate the declaration of the formative 'R'-grade before the commencement of the L-based summative assessment.

n) A candidate placed under 'R' will not be permitted to take up the L-based summative assessment.

5.3.2 Summative Assessment

Summative assessment activities including timetables, question paper model, duration of the examinations will be informed to the students well before the commencement of the examinations in the form of circulars from Dean-AAA's office.

- a. The following format may be used for summative assessment for L-based courses integrated with T/P.
 - i. 40 (L) marks format (L+T or L+P courses).
- b. **Summative assessment** is based on a written examination for a max. marks of 60, as in c & d below, which is **scaled down** to 40.
- c. For each L-based course integrated with T/P, the summative assessment shall be conducted by the Institute for a duration of 150 min. and for a maximum of 60 marks. Contents for summative assessment shall cover the breadth and depth of the complete syllabus that is mentioned in the two modules of a course.
- d. The question paper for end-semester theory examination consists of two parts as given in Table (2).

Table 2: L-based Summative Assessment Question Paper Pattern.

Part No.	No. of Questions	Marks for each Question	Marks	Choice
A	4	8	32	No
B	2	14	28	No
Total Marks			60	

- e. The questions will be comprehensive covering the entire course syllabus and any single question should not necessarily be limited to any particular unit / module.
- f. These marks are *suitably mapped down* to a score of 40.
- g. Total marks of summative assessment will be for a max. of 40 irrespective of format of evaluation.
- h. The award of 'F' grade is solely based on marks scored in summative assessment out of 40, if he/she does not score a min. 20 out of 40 (50%).

5.4 L-based Courses

5.4.1 Formative Assessment

To monitor the progress of students, continuous assessment comprising of six targets (Pre-T1, T1, T2, T3 and T4) is advocated for a maximum of 50 marks. Students in each section are randomly grouped into batches comprising of 3 to 4 members. These batches remain same for all courses and also for the P-sessions in the courses in that semester and are created in the beginning of that semester. The suggestive modality of evaluation of five targets is listed here under:

- a) **Pre-T1** shall be conducted once in module-1 and twice in module-2 by course instructor as classroom test / assignments. Assignments may cover pre-announced modular bank problems or broad concepts covered during the L-sessions, with a weightage of 10 marks.
- b) **Module -1-T1**: As outlined in Section 2.2, Module-1 is conducted over a shorter duration, emphasizing the fundamentals and broad perspectives of the course. In tune with this, the assessment could be based on Revised Bloom's Taxonomy Levels 1, 2, and 3, with an emphasis on remembering (recalling), understanding, and applying. To assess these skills, Module-1 T1 will be a paper-based, proctored test conducted for 90 minutes and graded for 30 marks. The question paper will consist of two 5-mark questions and two 10-mark questions. There will be no module bank for this module. The test will be held between the 34th and 36th days after commencement of the course, typically around the 6th week.
- c) **Module -2-T1**: T1 for module-2 commences by the announcement of module bank containing 10 problems covering the course contents of the module. Nature of problems in the module bank shall be at the level of creative / exploratory / design / thought provoking covering the complete syllabus of a module at somewhat advanced / challenging level. The purpose of creating module bank of 10 problems is to assign one problem each to 2 batches of 3 - 4 members. The purpose of assigning one problem to two batches is to create a healthy competitive spirit between the two batches. During 7th week of module-2, T1 consisting of two parts: A and B shall be conducted.
- Part A consists of one random problem from the module bank and vary from batch to batch. All the questions in the module bank shall be distributed among students and students shall know the question to be answered only on the day of test in the examination hall.
- Part B consists of one common problem at fairly application/ advanced level (**not at all prior notified**) from outside the module bank for all the students.
- T1 shall be paper based and proctored test for a period of 90 min (maximum) which shall be assessed for 20 marks.
- For the students who for justifiable reasons could not attend the classroom test on the scheduled day, a re-test maybe conducted. However, Part-B will contain a new question and Part-B will have higher weightage than part-A or full weightage could even be allotted for Part-B in such an event.

- d) **T2:** Immediately follows Module -2-T1. Students in a specified batch who now have received the same question during T1 will work further on that problem for T2.

T2 is primarily an extension of problem received in T1 for carrying out validation study: Case studies / Simulations / Experimentation. Each batch shall interact with the course instructor to finalize the nature of validation and expected to complete the exercise within 10 to 12 days after T1.

Course instructor should ensure assigning a different case study / a different scope for validation study for each batch in case the same problem is assigned to two batches.

Course instructor shall assess every student in a batch for a max. of 10 marks based on his observation, interaction and/or reviewing (based on at least two reviews).

- e) **T3:** T3 shall be conducted during the last week of each module. Student batches are expected to submit a report, clearly documenting the work executed during T2. The report should be in IEEE / APA format and additionally a voice in-built PPT should be prepared and submitted.

The report and presentation shall be assessed by the course instructor for 10 marks for every student. In certain cases, a course instructor can call for a physical presentation also by a batch.

- f) **T4:** T4 is a comprehensive test covering contents of both the modules conducted for 30 min. comprising of 40 multiple choice questions (MCQs) covering the holistic content of both the modules. T4 shall be evaluated for a max. of 20 marks @ ½ mark for each question. T4 will be conducted in ON-LINE mode.

When the test is administered online, every student receives the questions in shuffled sequence and also the choices in shuffled sequence. Therefore, the choice like both 'a' & 'b' above. Neither 'a' nor 'b', all the three a, b, c will not be set.

- g) The scores of the targets are to be normally announced within three working days on completion of the assessment and the performance is to be discussed in the class.

- h) **The total marks for module-1 is 40 – Pre-T1 (10) and T1 (30)**

The total marks for module-2 is 60 – Pre-T1 (10), T1 (20), T2 (10), T3 (10) and T4 (20)

- i) The total marks for Module 1, Module 2 (M1 + M2 = 50) together considered for a max. marks of 60. The lead instructor, in consultation with the HoD, will review the scaled-down marks and determine a suitable mapping. The finalized mapping approach must be shared with Dean AAA for documentation.

5.5 P-based Courses

The detailed information consisting of experiments, batch formations, experiment schedules, etc., will be displayed / informed to the student in the first week of the semester so that the student comes prepared for the lab sessions. Copies of the lab manual will be made available to the students along with the schedule. The lab manual will consist of the list of equipment's, detailed procedure to conduct the experiment, format for record writing, outcomes for each experiment and possible set of short questions to help students gain critical understanding. The courses like skill enhancement, binary graded, projects and Introductory Mathematics will also be treated as P-based courses.

5.5.1 Formative Assessment

During laboratory sessions, a brief viva-voce is conducted for each student on the experiment he/she is carrying out on that day. Some of the parameters that could be included in the Continuous Lab Practice Assessment (CLPA) are given in Table (3). The set of parameters may slightly differ from one laboratory to the other, and will be announced before the commencement of the lab session. These parameters are assessed for each laboratory session.

Table 3: Suggested parameters for Lab Practice Assessment (CLPA)

S. No	Component	Marks
1	Report of about 1 page on proposed experimental layout and background theory before the start of lab session	4
2	Viva and interaction to evaluate understanding of concepts	4
3	Experimentation and data collection	4
4	Analysis of experimental data and interpretation	4
5	Finalized report submitted in the next week	4
Total		20

Each practice session is assessed for a total of 20 marks. The cumulative scores from all sessions will be **suitably mapped down** to a max. of 50 marks, with Module-1 contributing 20 marks and Module-2 contributing 30 marks toward the consolidated formative assessment.

5.5.2 Summative Assessment

End semester examination for each practical course is conducted jointly by two examiners. The end-semester examination for each practical course is conducted jointly by two examiners. The panel of examiners is constituted by the respective School Dean. The internal examiner is the faculty member who has conducted all practical sessions and associated activities throughout the semester. The external examiner is nominated from within the department and is familiar with the course's practical components but has not been directly involved in its delivery. The scheme of assessment may vary depending on the nature of the laboratory, which shall be shared with student by the laboratory in-charge. The summative assessment will be conducted for a max. marks of 50. The general scheme of assessment is given in Table (5).

Table 5: Suggested end-semester summative assessment pattern for P-based courses.

Component	Marks		
	Examiner 1	Examiner 2	Total
Objective & Procedure write up including outcomes	5	5	10
Experimentation and data collection	5	5	10
Computation of results	5	5	10
Analysis of results and Interpretation	5	5	10
Viva Voce	0	10	10
Total Marks	20	30	50

5.6 Project

Performance of RAWE, AIA and ELP projects will also be assessed in the modular framework for formative and summative assessment. The detailed assessment procedure is outlined in the 'RAWE, AIA and ELP programme operational guidelines' manual.

5.7 Binary graded courses

Binary graded courses aim to simplify the grading process and encourage students to focus on learning and achieving the mastery rather than the pursuit of specific grades. Students will enroll in these courses during the I and V semesters of programme. Unlike traditional grading systems, binary graded courses offer only two possible outcomes i.e., Pass grade / R-grade. To obtain Pass grade, a candidate should maintain 75% of attendance and secure a minimum of 50% score (i.e. 50 marks out of 100) in each course; else the candidate shall

be placed into 'R'-grade. There shall not be any summative assessment activity for Binary graded courses.

5.7.1 Formative assessment

The assessment will be carried in a systematic way wherein two reviews per module shall be conducted as mentioned in the Table (4).

Table 4: Schedule for formative assessment

Module	Activity	Formative assessment marks
Module -1	Activity - 1	20
	Activity - 2	20
Module -2	Activity - 1	30
	Activity - 2	30

5.8 Creative Work-as-Part of a Project:

The "Creative Work-as-Part of a Project" initiative aims to foster a culture of *creative exploration, holistic learning, and deep engagement* with academic and professional pursuits. By integrating diverse activities such as research, innovation, global certifications, and advanced internships, this program empowers students to achieve excellence beyond traditional coursework. The structured assessment ensures that each contribution is recognized fairly, promoting a transformative educational experience that aligns with global academic and industry standards. This provision applies between the 4th and 8th semesters. Credits for various academic activities shall be awarded based on individual contributions ranging from 1 to 2 credits. For each category of achievement, credits may be awarded as specified in Table 5.

Table 5: Credit Allocation for Different Achievement Categories

Categories	First Author / Sole Author	Co-Author (Max. 4 students)
SCI / SCI-E - Q1 & Q2	5	4.5
SCI / SCI-E - Q3 & Q4	4	3.5
Scopus / E-SCI/NAAS > 4	3.5	3
Book Chapter / Top-notch Conference publications (Scopus / SCI indexed)	3	2.5
Idea Patent Grant	3	2
Utility Patent Publication / Grant	3 / 4	2 / 3

Categories	First Author / Sole Author	Co-Author (Max. 4 students)
Paper / Poster Presentations & Working Models in the top 100 NIRF rankings institutes (excluding VFSTR)	1	0
Prizes - Paper / Poster Presentations & Working Models in the top 100 NIRF rankings institutes (excluding VFSTR)	2	0
Global certifications	4	0
Special Internships (Govt. sponsored / BIRAC SITARE/ IITs/ IISc/.....)	2	0

In the case of paper publications, credits shall be granted only for papers published online or with volume and page numbers. Students must submit the manuscript's initial version, review reports, responses, and the final published version for credit defense.

If credits fall short, the deficit can be addressed by reading advanced research papers under a mentor's guidance, with individual assessments conducted by the mentor. Manuscripts under review may also be considered for credit allocation. Students unable to publish by the end of 4(1) must earn credits through advanced-level NPTEL courses in 4(2).

Collaborative publications involving students from different departments are treated as sole authorship, with equal credits awarded to contributors.

Ethical practices must be upheld in all activities, and any shortcuts or unethical behaviour are strictly prohibited. A committee, chaired by the Head of the Department and comprising four members - the School Dean, counsellor, one senior faculty member, and a representative from the Board of Research & Development (BoR)— shall oversee students' academic achievements to finalize and authorize credit transfer details and communicate them to the Office of Dean AAA.

6. SEMESTER-END ASSESSMENT ACTIVITIES

- 6.1 For semester-end L-based summative assessment, the question paper will be obtained from external experts. Two sets of question papers will be submitted latest by 12th week of the semester.
- 6.2 The HoDs of the respective departments will ensure due coverage of the syllabus with the provision of moderation, if necessary. The review should be completed by the 14th week of the semester. Paper evaluation to be done by a faculty other than the course instructor(s).

- 6.3 The question wise marks scored in the L-based summative assessment out of a total of 60 will be made available online within two weeks from the last date of examination and would be kept active for 24 hours. Latest by the end of 48 hours from the instant of notification any candidate can submit an appeal online providing question wise claim.
- 6.4 Claims for re-assessment on P-based courses are not allowed.
- 6.5 The appeals will be attended within next three working days. Fees for appeal, as decided from time to time, has to be remitted online along with the appeal.
- 6.6 Final results and grades will be computed as explained in the next section.
- 6.7 Final results and grades shall be announced within four weeks of completion of the last examination of the summative assessment (within two weeks from the last date of appeal). Grades are published on the University website, and also informed to the parents and students through SMS.
- 6.8 Provisional Grade cards will be issued within two weeks after the announcement of grades. Grade card will contain three parts. Part 1: Details of successfully completed courses. Part 2: Details of 'I' grade courses. Part 3: Details of 'R' grade courses.

7. GRADING POLICY

To ensure fair and context-sensitive assessment of student performance, a **Bilateral Relative Grading System** shall be adopted for all credit-based courses. This system permits the possibility of upward scaling, downward scaling, or retention of absolute scores, based on a holistic analysis of marks distribution, course complexity, assessment design, and class performance. The decision regarding the direction and extent of scaling shall be made by a committee duly appointed by the Honorable Vice-Chancellor.

The grading for each course shall be finalized by the committee, ensuring that the influence of outlier scored is minimized while accurately representing the performance of the major cohort. This method supports equitable grade interpretation across diverse course deliveries and upholds the integrity of the assessment process.

8 COMPUTATION OF GRADING

- 8.1 Formative assessment decides the list of 'R'- candidates. Therefore, these candidates will not be considered for grading computation. Summative assessments decide the list of 'I' candidates. Therefore, these candidates will not be considered for grading computation.

8.2 The candidates who have successfully completed both formative and summative assessments will be considered for computation of relative grading.

8.3 Threshold value (**Th**) for relative grading in each course is arrived after studying the marks distribution in that course by a committee constituted by office of Dean AAA. The threshold value is decided by the upper bound marks of the major chunk of the class keeping the top outlier scores away from consideration (the least upper bound). The threshold value will be slightly greater than upper bound marks or may be equal to the upper bound marks.

8.4 The total marks (**m**) = marks scored in the formative assessment + marks scored in the summative assessment is transformed into relative grade expressed accurate to two decimal places as follows:

$$\text{Relative grade point (P)} = (m/Th) \times 10 \text{ [and limited to 10]}$$

8.5 If students require course wise percentage equivalence, then the calculation will be based on the following

$$\text{Course wise percentage equivalence} = (m/Th) \times 100 \\ \text{[truncated to two-digit integer and limited to 100]}$$

8.6 After relative grading, a student is assigned a 'Letter Grade (G)' for each course as per Table (6). The grade and the corresponding letter grade represent the outcomes and assessments of a student's performance in a course.

Table 6: Grading information

Relative Grading Range (P)	Category	Grade (G)
≥ 9.50	Outstanding	O
≥ 9.00 to 9.49	Excellent	S
≥ 8.00 to 8.99	Very good	A+
≥ 7.00 to 7.99	Good	A
≥ 6.00 to 6.99	Fair	B
≥ 5.00 to 5.99	Marginal	C
Transitional Grade	Repeat	R
Transitional Grade	Incomplete	I

9. SUPPLEMENTARY EXAMINATIONS

9.1 The supplementary examinations shall be conducted once in summer semester. Notifications will be released by the examination section informing the students about

registration procedures, details of fee and timetables. Apart from these examinations the students who have courses with 'I'-grade can also write the supplementary examinations along with regular semester-end examinations of that academic (Odd / Even) semester.

- 9.2 Whenever a candidate clears courses with 'I' grade in a supplementary examination that are conducted during a regular semester, the Threshold value for computing his / her grade will be obtained from the same batch in which he / she had completed his/her formative assessment.
- 9.3 Whenever a candidate clears courses with 'R' / 'I' grade in a summer semester, the Threshold value for computing his / her grade will be carry forwarded from the preceding Odd / Even semester for the respective courses.
- 9.4 Whenever a candidate clears courses with a 'R' grade in a regular semester along with his/ her junior batch then for this candidate the Threshold value will be corresponding to his/her junior batch for computing grade.
- 9.5 The results of summative assessment of Project / Internship will be announced only if the candidate successfully earns all the credits in courses registered during the program. If the candidate is with 'R' / 'I' graded courses the results will be kept under '**Announced Later (L)**' status and will be announced only after candidate clears these courses.

10. GRADE POINT AVERAGE

The Academic Performance of a student in every semester is indicated by the Semester Grade Point Average (SGPA) and finally by Cumulative Grade Point Average (CGPA).

10.1 SGPA

The Semester Grade Point Average (SGPA) shall be computed using the formula given below:

$$SGPA = \frac{\sum_{i=1}^n C_i P_i}{\sum_{i=1}^n C_i}$$

Where

n = number of courses a student successfully completed in the semester under consideration

P_i = Grade points secured for the ith course registered in the semester under consideration.

C_i = the number of credits assigned to ith course registered in the semester under consideration

10.2 CGPA

The Cumulative Grade Point Average (CGPA) shall be computed after successful completion of the programme. The CGPA shall be expressed in different flavours to reflect B.Sc. (Hons.) Agriculture of 175+10 credits.

Accordingly, the computations will be as below:

$$CGPA = \frac{\sum_{j=1}^m C_j P_j}{\sum_{j=1}^m C_j}$$

Where

m = total number of courses prescribed for the completion of the programme

P_j = grade points secured for the jth course.

C_j = the number of credits assigned to jth course

11. AWARD OF CLASS

The students who have become eligible for award of degree shall be classified based on their CGPA secured, as per the Table (7) given below:

Table 7: Class/ Division information.

Sl. No.	CGPA	Class / Division
1	8.0 and above	First Class with Distinction
2	6.5 and above but less than 8.0	First Class
3	6.0 and above but less than 6.5	Second Class
4	5.0 and above but less than 6.0	Pass class
5	Less than 5.0	No class

- a) For the purpose of rewarding the accomplishers with ranks and awards, toppers in each branch discipline are identified, based on their academic performance (CGPA).
- b) In addition, the 'Chairman's gold medal' and other 'Endowment Awards' are awarded to the 'outstanding students' based on the overall performance which includes academic, co-curricular and extra-curricular activities, campus placements and competitive examinations. A committee appointed by the Vice-Chancellor will recommend the eligible student for the award, selected from the nominations received from the departments.
- c) In addition, the institution may recognize exceptional performance such as music, dance, sports etc. and display of exceptional bravery from time to time.

- d) Only such candidates who complete 175 +10 credits in the first 8 successive semesters shall be eligible to receive awards/ ranks.
- e) The candidates availing spill over semesters will not be eligible for the award of merit scholarships.

12. AWARD OF DEGREE

On successful completion of prescribed requirements of the programme, the degree shall be conferred during the convocation of the VFSTR.

For the conferment of degree, the student has to fulfill the following requirements:

- a) a bonafide student and undergone the course work of not less than four academic years and not more than seven academic years from the date of joining.
- b) successfully completed all the courses as prescribed in the respective curriculum.
- c) acquired a minimum eligible credits i.e. **175+10** credits for the award of B.Sc. (Hons.) Agriculture degree.
- d) obtained no due certificates as prescribed by VFSTR.
- e) no in-disciplinary proceedings pending against him / her.

Consequent upon being convinced, following an enquiry, the Academic council may resolve to withdraw the degree / diploma / any other certification provided by the institute. The aggrieved may however prefer for a review of such decision by the Academic Council, citing cogent reasons for review or go in for an appeal to the, Executive Council of the institute.

13. LATERAL ENTRY AND LATERAL EXIT OPTIONS

13.1 Lateral Entry and Exit

There is provision of multiple entry and exit at different levels. The student/s will have the option to exit after the 1st year. He/ she has to complete 10 weeks of internship (10 credits) after 1st year (2 semesters) to be eligible for award of UG-Certificate in Agriculture. The student has another option to exit after the 2nd year. The student has to complete another 10 weeks of internship (10 credits) after 2nd year (4 semesters) to be eligible for award of UG-Diploma in Agriculture. After four years of study, the student will be awarded UG degree in concerned discipline. No exit after 3 years (6 semesters) is recommended considering the professional nature of the courses. The lateral entry at 3rd semester will be for the candidates having UG-certificate in Agriculture or those who have completed Diploma (3

years course after 10th) in recognised HAEIs. The lateral entry in 5th semester will be for candidates who have completed UG-Diploma in Agriculture.

13.2 Inter- Institutional Credit Transfer

Students pursuing an undergraduate programme in other recognized Higher Education Institute (HEI) could be admitted into VFSTR without appearing for the entrance exam to continue their studies, subject to the approval by a committee constituted by Vice-Chancellor. In this case, the student shall furnish the transcripts or grade cards, syllabus copies, educational certificates, and other relevant documents while applying for admission. The committee constituted by Vice-Chancellor, will establish the equivalency based on the marks / credits obtained in the courses in the previous institute by following the Inter- Institutional Credit Transfer policy.

13.3 Volunteer 'Drop' with Sabbatical Semester option

A candidate may exercise his option to voluntarily exit from B.Sc. (Hons.) Agriculture programme temporarily for a semester during the B.Sc. (Hons.) Agriculture programme, by registering for a 'DROP option' in the beginning of the semester. The DROP can be exercised to take up special Internship / Innovation / Exploratory / Entrepreneurship / Advanced research / Start-up and such related activities. Under such circumstances a candidate can normally avail DROP over two successive semesters. Such 'Drop' semester will be identified as Sabbatical semesters.

Such a candidate has to pay the regular semester fee if such a Drop option is utilized during the first 8 semesters of B.Sc. (Hons.) Agriculture, and has to pay a nominal semester maintenance fee during the spill over period, if a candidate has not yet completed the credit requirements.

Upon returning from such a temporary exit, a candidate may continue his B.Sc. (Hons.) Agriculture studies utilizing the provision of spill over period. A candidate may also submit a claim for Credit equivalence for the activities undertaken during the sabbatical period. The equivalence committee would evaluate and assess the academic equivalence of the work carried out and would recommend the credit equivalence and credit transfer to be granted together with the grades that could be attributed, if applicable. However, the max. duration of programme should be limited to seven years and further extension beyond the stipulated max. duration of study has to be approved by Academic Council, if the candidate appeals for an extension.

13.4 Volunteer 'Drop' with Semester Drop option

A candidate may exercise his option to voluntarily exit from B.Sc. (Hons.) Agriculture programme temporarily for a semester during the B.Sc. (Hons.) Agriculture programme, by registering for a 'DROP option' in the beginning of the semester to meet the family / personal exigencies. All the norms as mentioned in the section (13.3) shall be applicable for the candidates utilizing semester drop option.

14. INTERPRETATION OF RULES

- a) The academic rules and regulations should be read as a whole for the purpose of any interpretation.
- b) For the matter(s) NOT covered herein above or for unforeseen circumstances, but arising during the course of the implementation of the above regulations. The Vice-Chancellor shall be authorized to remove the difficulties and decide upon the matters. The same shall be reported in the next meeting of Academic Council for ratification and subsequently informed to Executive Council.
- c) The Institution may change or amend the academic rules and regulations or curriculum at any time, and the changes or amendments made shall be applicable to all the students with effect from the dates, notified by the Institution.
- d) Procedure and explanation to any section can be floated by the office of Dean AAA as applicable from time to time with due approval by the Chairman of Academic Council.

ANNEXURE – 1
INTER – INSTITUTE CREDIT TRANSFER

Students pursuing an undergraduate programme in other recognized Higher Education Institute (HEI) could be admitted into VFSTR without appearing for the entrance exam to continue their studies, subject to the approval by a committee constituted by Vice-Chancellor. In this case, the student shall furnish the transcripts or grade cards, syllabus copies, educational certificates, and other relevant documents while applying for admission. The committee constituted by Vice-Chancellor, will establish the equivalency based on the marks/credits obtained in the courses in the previous institute by following the admission policy as mentioned below.

PROCEDURE:

- Admissions are only at the beginning of an academic year and depends on availability of vacancies in the respective program.
- The courses studied by the candidates elsewhere will be mapped with the courses offered by VFSTR and the committee may suggest for study of additional courses for maintaining credit equivalency or for satisfying pre-requisites. The committee may also recommend the plan of study for the courses identified.
- After admission, the student has to submit the following documents.
 - Migration certificate
 - Grade card / Marks Memo
 - “No objection certificate (NOC)” from the concerned Institute / University where the candidate completed part of the programme.
- Provisional admission of the candidates will be confirmed only after verification of the authenticity of the certificates from the concerned authorities.
- Min. 50% of the credits have to be earned at VFSTR.
- Courses which are completed by the candidate in the previous institute will be transferred as recommended by the equivalence committee under credit cum grade transfer. Inclusive these credits the candidate has to complete the credit requirements as per VFSTR.
- Consolidated grade card / transcript will clearly show the credits under credit transfer and corresponding CGPA and credits earned in VFSTR and corresponding CGPA. Overall CGPA may also be indicated.

EXTENSION:

VFSTR candidates may also be permitted to earn credits up to max of 20% by the way of credit transfer from taking up the courses from other institutes of repute.

COURSE STRUCTURE - C25

I Year I Semester

Course Code	Course Title	L	T	P	SL	C	Category
25ICF101	Deeksharambh*	0	0	4	0	2	Binary graded
25AGRO101	Fundamentals of Agronomy	2	0	2	2	3	Core course
25SSAC121	Fundamentals of Soil Science	2	0	2	2	3	Core course
25HORT181	Fundamentals of Horticulture	2	0	2	2	3	Core course
25AGRO102	Farming Based Livelihood Systems	2	0	2	2	3	MDC
25AEXT191	Rural Sociology and Educational Psychology	2	0	0	2	2	Core course
25AEC111	Communication Skills	1	0	2	1	2	AEC
25SMCA101	Introductory Mathematics	0	0	2	0	1	MDC
25SEC101	Soil, Plant and Water Testing (SEC-I)	0	0	4	0	2	SEC
25SEC102	Horticulture Nursery Management (SEC-II)	0	0	4	0	2	SEC
25AEC113	National Service Scheme-1 (NSS-I)	0	0	2	0	1	AEC
25AEC115	National Cadet Corps-1						
Sub-Total		11	0	22+4	11	22+2	
Total		33+4			11	22+2	

L=Lecture; T= Tutorial; P= Practical; C=Credits

*2 weeks non gradial course

I Year II Semester

Course Code	Course Title	L	T	P	SL	C	Category
25ENTO131	Fundamentals of Entomology	2	0	2	2	3	Core course
25PATH171	Fundamentals of Plant Pathology	2	0	2	2	3	Core course
25SSAC122	Soil Fertility Management	2	0	2	2	3	Core course
25LSPM101	Livestock and Poultry Management	1	0	2	1	2	Core course
25CPHY161	Environmental Studies and Disaster Management	2	0	2	2	3	VAC
25AEC112	Personality Development	1	0	2	1	2	AEC
25SEC103	Agriculture Waste Management (SEC-III)	0	0	4	0	2	SEC
25SEC104	Organic Production Technology (SEC-IV)	0	0	4	0	2	SEC
25AEC114	National Service Scheme (NSS-II)	0	0	2	0	1	AEC
25AEC116	National Cadet Corps (NCC-II)						
Sub-Total		10	0	22	10	21	
Total		32			10	21	

L=Lecture; T= Tutorial; P= Practical; C=Credits

II Year I Semester

Course Code.	Course Title	L	T	P	SL	C	Category
25SEC201	Video Production (SEC-V)	0	0	4	0	2	SEC
25AECO241	Entrepreneurship Development and Business Communication (MDC)	2	0	2	2	3	MDC
25AEC211	Physical Education, First Aid and Yoga Practices (AEC)	0	0	4	0	2	AEC
25GPBR211	Principles of Genetics	2	0	2	2	3	Core course
25AGRO201	Crop Production Technology-I (Kharif crops)	1	0	4	1	3	Core course
25HORT281	Production Technology of Fruit and Plantation Crops	1	0	2	1	2	Core course
25AEXT291	Fundamentals of Extension Education	1	0	2	1	2	Core course
25ENTO231	Fundamentals of Nematology	1	0	2	1	2	Core course
25AGRO202	Principles and Practices of Natural Farming	1	0	2	1	2	Core course
Sub-Total		9	0	24	9	21	
Total		33			9	21	

L=Lecture; T= Tutorial; P= Practical; C=Credits

II Year II Semester

Course Code	Course Title	L	T	P	SL	C	Category
25SEC203	Floriculture and Landscaping (SEC VI)	0	0	4	0	2	SEC
25SMCA201	Agricultural Informatics and Artificial Intelligence (VAC)	2	0	2	2	3	VAC
25HORT282	Production Technology of Vegetables and Spices	1	0	2	1	2	Core course
25AECO242	Principles of Agricultural Economics and Farm Management	2	0	0	2	2	Core course
25AGRO203	Crop Production Technology-II (Rabi Crops)	1	0	4	1	3	Core course
25AENG251	Farm Machinery and Power	1	0	2	1	2	Core course
25AGRO204	Water Management	1	0	2	1	2	Core course
25SSAC221	Problematic Soils and their management	1	0	2	1	2	Core course
25GPBR212	Basics of Plant Breeding	2	0	2	2	3	Core course
25AB201	Machine Learning through Python	2	0	2	2	3	MDC
Sub-Total		13	0	22	13	24	
Total		35			13	24	

L=Lecture; T= Tutorial; P= Practical; C=Credits

III Year I Semester

Course Code	Course Title	L	T	P	SL	C	Category
25AECO341	Agricultural Marketing and Trade (MDC)	2	0	2	2	3	MDC
25AGRO301	Introduction to Agro-meteorology	1	0	2	1	2	Core course
25CPHY361	Fundamentals of Crop Physiology	2	0	2	2	3	Core course
25ENTO331	Pest management in Crops and Stored Grains	2	0	2	2	3	Core course
25PATH371	Diseases of Field & Horticultural Crops & their Management	2	0	2	2	3	Core course
25GPBR311	Crop Improvement – I (Kharif crops)	1	0	2	1	2	Core course
25AGRO302	Weed Management	1	0	2	1	2	Core course
25HORT381	Ornamental Crops, MAPs and Landscaping	1	0	2	1	2	Core course
25AGRO303	Introductory Agro forestry	1	0	2	1	2	Core course
25AH301	Educational Tour*	0	0	4	0	2	Binary graded
Sub-Total		13	0	22	13	24	
Total		35			13	24	
	Online course*						Online/ non gradial

L=Lecture; T= Tutorial; P= Practical; C=Credits

*Online non gradial courses of 10 credits need to be self-studied by student during the entire 4-year course programme as per his/ her convenience by informing to Dean of institute.

III Year II Semester

Course Code	Course Title	L	T	P	SL	C	Category
25AB301	Fundamentals of Agri Biotechnology	2	0	2	2	3	Core course
25SMCA301	Basic and Applied Agri. Statistics	2	0	2	2	3	Core course
25GPBR312	Crop Improvement – II (Rabi crops)	1	0	2	1	2	Core course
25AENG351	Renewable energy in Agriculture and Allied Sector	1	0	2	1	2	Core course
25AGRO304	Dryland agriculture/ Rainfed agriculture and watershed management	1	0	2	1	2	Core course
25BICM301	Essentials of Plant Biochemistry	2	0	2	2	3	Core course
25PATH372	Agricultural Microbiology and Phyto -remediation	1	0	2	1	2	Core course
25AECO342	Agricultural Finance & Cooperation	1	0	2	1	2	Core course
25GPBR313	Fundamentals of Seed Science & Technology	1	0	2	1	2	Core course
Sub-Total		12	0	18	12	21	
Total		30			12	21	
	Online course*						Online/ non gradial

L=Lecture; T= Tutorial; P= Practical; C=Credits

*Online non gradial courses of 10 credits need to be self-studied by student during the entire 4-year course programme as per his/ her convenience by informing to Dean of institute.

IV Year I Semester Structure

Course Code.	Course Title	L	T	P	SL	C	Category
	Minor/ Elective course I	3	0	2	3	4	Minor/ Elective
	Minor/ Elective course II	3	0	2	3	4	Minor/ Elective
	Minor/ Elective course III	3	0	2	3	4	Minor/ Elective
	Minor/ Elective course IV	3	0	2	3	4	Minor/ Elective
	Minor/ Elective course V	3	0	2	3	4	Minor/ Elective
Sub-Total		15	0	10	15	20	
Total		25			15	20	
	Online course*						Online/ non gradial

L=Lecture; T= Tutorial; P= Practical; C=Credits.

*Online non gradial courses of 10 credits need to be self-studied by student during the entire 4-year course programme as per his/ her convenience by informing to Dean of institute.

IV Year II Semester Structure

Course Code.	Course Title	L	T	P	SL	C	Category
	RAWE	0	2	38	0	20	Project
	Industrial Attachment						
25AH401	Experiential Learning						
25AH402	Hands-on Training						
25AH403	Internship						
25AH409	Work as Part of a Project						
Total Credits		40			0	20	
	Online course*						Online/ non gradial

L=Lecture; T= Tutorial; P= Practical; C=Credits

*Online non gradial courses of 10 credits need to be self-studied by student during the entire 4-year course programme as per his/ her convenience by informing to Dean of institute.

List of Skill Enhancement Courses

Course Code.	Course Title	L	T	P	SL	C	Category
25SEC204	Biofertilizer and biopesticide production	0	0	4	0	2	SEC
25SEC205	Production Technology of Bioagents	0	0	4	0	2	SEC
25SEC206	Seed Production and Testing Technology	0	0	4	0	2	SEC
25SEC207	Mushroom Production Technology	0	0	4	0	2	SEC
25SEC101	Soil, Plant and Water Testing	0	0	4	0	2	SEC
25SEC202	Post-harvest Processing Technology	0	0	4	0	2	SEC
25SEC109	Beneficial Insect Farming	0	0	4	0	2	SEC
25SEC208	Plantation Crop Production and Processing	0	0	4	0	2	SEC
25SEC107	Poultry Production Technology	0	0	4	0	2	SEC
25SEC108	Piggery Production Technology	0	0	4	0	2	SEC
25SEC106	Commercial Horticulture	0	0	4	0	2	SEC
25SEC203	Floriculture and Landscaping	0	0	4	0	2	SEC
25SEC209	Food Processing	0	0	4	0	2	SEC
25SEC103	Agriculture Waste Management	0	0	4	0	2	SEC
25SEC104	Organic Production Technology	0	0	4	0	2	SEC
25SEC105	Commercial Sericulture	0	0	4	0	2	SEC
25SEC102	Horticulture Nursery Management	0	0	4	0	2	SEC
25SEC201	Video Production	0	0	4	0	2	SEC

L=Lecture; T= Tutorial; P= Practical; C=Credits

List of Minor/Elective Courses

Course Code	Course Title	L	T	P	SL	C	Category	Course Offered By
25ELCT441	Agri-Business Management	3	0	2	3	4	Minor /Elective	AHS
25ELCT421	Management of natural resources	3	0	2	3	4	Minor /Elective	AHS
25ELCT422	Agrochemicals	3	0	2	3	4	Minor /Elective	AHS
25ELCT491	Agricultural Journalism	3	0	2	3	4	Minor /Elective	AHS
25ELCT481	Landscaping	3	0	2	3	4	Minor /Elective	AHS
25ELCT411	Commercial Plant breeding	3	0	2	3	4	Minor /Elective	AHS
25ELCT801	Food safety and standards	3	0	2	3	4	Minor /Elective	AHS
25ELCT423	Bioformulation and Nano formulation	3	0	2	3	4	Minor /Elective	AHS
25ELCT431	Biopesticides and Biofertilizers	3	0	2	3	4	Minor /Elective	AHS
25ELCT492	System Simulation and Agro advisory	3	0	2	3	4	Minor /Elective	AHS
25ELCT482	Hi-tech Horticulture	3	0	2	3	4	Minor /Elective	AHS
25ELCT451	Protected cultivation	3	0	2	3	4	Minor /Elective	AHS
25ELCT461	Climate Resilient Agriculture	3	0	2	3	4	Minor /Elective	AHS
25ELCT412	Biotechnology of Crop Improvement	3	0	2	3	4	Minor /Elective	AHS
25ELCT401	Geoinformatics and Remote Sensing, precision farming	3	0	2	3	4	Minor /Elective	AHS

25ELCT483	Micro-propagation Technologies	3	0	2	3	4	Minor /Elective	AHS
25ELCT413	Commercial Seed Production	3	0	2	3	4	Minor /Elective	AHS
25ELCT402	Principles and Practices of Organic Farming	3	0	2	3	4	Minor /Elective	AHS
25ELCT403	Principles and Practices of Conservation Agriculture	3	0	2	3	4	Minor /Elective	AHS
25ELCT802	Food Science and Nutrition	3	0	2	3	4	Minor /Elective	AHS
25ELCT452	Post-Harvest Technology and Value Addition	3	0	2	3	4	Minor /Elective	AHS

L=Lecture; T= Tutorial; P= Practical; C=Credits

List of RAWE Courses

Course Code	Course Title	L	T	P	SL	C	Category	Course Offered By
		0	2	34	0	18		AHS
		0	2	34	0	18		AHS
		0	2	34	0	18		AHS
		0	2	34	0	18		AHS
		0	2	34	0	18		AHS

