

## VIGNAN INSTITUTE OF AGRICULTURE AND TECHNOLOGY

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Date: 07.10.2024

### Minutes of Board of Studies Meeting

The Sixth Board of Studies (BoS) meeting for the B.Sc. (Hons.) Agriculture Program was held on October 07, 2024, from 10:30 am to 07:30 pm. The meeting was conducted in a blended format: some participants attended in person at the Board Room, fifth floor of A Block, VFSTR, while others joined virtually via a Zoom meeting using the following link: <https://us06web.zoom.us/j/8695890521?pwd=Y0RNWTRIZnlMaFhVVndGYkNuaW9wZz09&omn=89976672926>. The event was presided over by Prof. T. Ramesh Babu, Chairperson of the Board of Studies, Dean, Vignan Institute of Agriculture and Technology (VIAT), VFSTR. ICAR has communicated the reconstruction of 6<sup>th</sup> Deans' committee report with the revised curriculum of B.Sc. (Hons.) Agriculture in tune with NEP 2020 and directed all SAUs, CAUs, DUs and Agricultural Colleges to adopt from the academic year 2024-25. Hence, the following agenda were discussed in the 6<sup>th</sup> BoS meeting of VIAT.

#### Agenda of the BoS Meeting:

1. Implementation of B.Sc. (Hons.) Agriculture Programme syllabus as per ICAR 6<sup>th</sup> Deans' committee report in tune with NEP 2020.
2. Reorientation of the semester wise courses of B.Sc. (Hons.) Agriculture programme as per ICAR 6<sup>th</sup> Deans' committee report.
3. Restructuring of the course content of B.Sc. (Hons.) Agriculture programme discipline wise as per ICAR 6<sup>th</sup> Deans' committee report.

**The following members were present either thorough offline or online (Annexure-I also).**

| Sl. No. | Name                     | Designation of the Member                          | Position                            | Signature   |
|---------|--------------------------|--|-------------------------------------|---|
| 1       | Dr. T. Ramesh Babu       | Dean, VIAT   | Chairman                            |   |
| 2       | Dr. K.P.C. Rao           | Honorary Fellow (Retd.), ICRISAT, Hyderabad        | External member (Research)          |  |
| 3       | Dr. T. V. Satyanarayana  | Registrar, MNR University, Hyderabad               | External member (Academia) (Online) |   |
| 4       | Dr. P. M. V. Rao         | Dean (AAA), VFSTR, Vadlamudi                       | Special Invitee                     |   |
| 5       | Dr. Krishna Prasadi      | Former Dean (Agriculture) ANGRAU                   | Special Invitee                     |  |
| 6       | Dr. N. S. Sampathkumar   | Joint Dean (AAA), VFSTR, Vadlamudi                 | Special Invitee                     |   |
| 7       | Dr. S. V. Phani Kumar    | HoD, Department of Computer Sciences               | Internal member                     |   |
| 8       | Dr. Rajanand Hiremath    | Assistant Professor, BoA, VIAT                     | Internal member                     |   |
| 9       | Dr. M. L. N. Nandini     | Assistant Professor, BoE, VIAT                     | Internal member                     |   |
| 10      | Dr. U. Pandu             | Assistant Professor, BoR, VIAT                     | Internal member                     |   |
| 11      | Dr. M. Chandra Surya Rao | Assistant Professor, Farm Superintendent, VIAT     | Internal member                     |   |
| 12      | Dr. T. Prabhakara Rao    | Assistant Professor, Coordinator, Department of AE | Internal member                     |   |
| 13      | Dr. Y. Vara Prasad       | Assistant Director, VIAT                           | Internal member                     |   |
| 14      | Dr. T. Naresh            | Assistant Professor, Entomology, VIAT              | Member Secretary                    |   |

Dr. Rajanand Hiremath, Board of Academics (BoA) Member, welcomed the external and internal members of Board of Studies (BoS) as well as special invitees who were experts from the industry and academia from the VIAT. As Chairperson, Dr. T. Ramesh Babu extended a

warm welcome to all members of BoS and esteemed special invitees. He expressed his sincere congratulations to all the participants for their commendable efforts in ensuring a robust turnout and recognized the significant value of their collective presence.

Afterward, Prof. T. Ramesh Babu delivered a brief presentation detailing the teaching, research and extension activities undertaken by the Vignan Institute of Gariculture and Technology. He also discussed the actions initiated based on the outcomes of the Fifth Board of Studies meeting. Below are some highlights from the Vignan Institute of Agriculture and Technology. He also underscored the significance of the occasion and delivered a detailed presentation outlining the following:

The existing programme structures, course syllabi, teaching, evaluation and methodology were highlighted. Furthermore, the key points of ICAR 6<sup>th</sup> Deans' Committee report including the guidelines developed as per NEP-2020 on Implementation Strategy for National Education Policy-2020 in Agricultural Education system, the eligibility and mode of admission criteria, institutional flexibility, lateral entry requirements, migration policy, maximum residential period for B.Sc. (Hons.) Agriculture programme were discussed.

In response to the NEP-2020's call to increase the Gross Enrolment Ratio (GER) in agriculture, provisions for launching stand-alone UG-Certificate and UG-Diploma courses in specific subjects or disciplines are recommended. The importance of maintaining each student's Academic Bank of Credits (ABC) is emphasized, in accordance with Higher Agricultural Education Institutions (HAEIs) and NEP-2020 guidelines. The significance of four key paths of knowledge; learning, skills, values and ethics are highlighted in the 6<sup>th</sup> Deans' Committee report according to which, it is proposed that the B.Sc. (Hons.) Agriculture program consists of 177 credits of which 167 are provided by the parent university and 10 are earned through online courses selected by the student in consultation with the university or HAEIs. In addition to this, new courses like Natural Farming and Agribusiness Management are introduced in B.Sc. (Hons.) Agriculture programme.

The Dean (SAFT) also addressed the salient features and the entry and exit options in B.Sc. (Hons.) Agriculture programme as per ICAR 6<sup>th</sup> Deans' Committee report, with emphasize on credit distribution. Key components include the Deeksharambh Foundation Course (2 weeks, non-gradial), core courses (major, minor, and 20 elective credits), Multi-Disciplinary Courses (9

credits), Value Added Courses (6 credits), Ability Enhancement Courses (8 credits), Skill Enhancement Courses (12 credits), the Students READY program (20 credits), Remedial Courses in Mathematics (1 credit), non-gradual a 2-week study tour (2 credits), and 10 credits of online courses. Concise details of elective and skill enhancement courses were also presented. Further, discussion covered the uniform examination and evaluation system with a standardized grading process, followed by an overview of semester-wise course, credit allocation and department-wise credits distribution.

He also pointed out that at present three additional courses each with 2(1+1) credit hours related to IoT are being offered at VIAT, VFSTR *viz.*, Python Programming, Machine Learning and Statistical Methods with Data Visualization. In this regard, he proposed a single course 'Machine Learning through Python' as 3(2+1) credits to offer it in second semester of second year which combines the syllabus of all the three existing courses. This decision was made by discussing with Dr. Krishna Kishore, Dean, School of Computing and Informatics, VFSTR. Further, he also enlightened semester wise courses and credits allocation followed by department wise courses and credits distribution. Furthermore, he proposed that the non gradial course 'Introductory Mathematics 1(1+0)' need to be offered as gradial with 1(0+1) credits during first semester of first year.

### **Initial Remarks:**

1. **Dr. P.M.V. Rao:** Expressed positive remarks on the outline and formulation of ICAR 6<sup>th</sup> Dean Committee report-syllabus. He suggested to choose any 5 online courses which will be outcome based as per UGC or as per 6<sup>th</sup> Dean Committee report.
2. **Dr. K.P.C. Rao:** Expressed that the practical based courses with 3(1+2) credits should have more weightage for the practical component since they are having high practical credits. He suggested that the elective course 'Micro Propagation Technology' need to be dealt by Crop Physiology as lead department. Likewise, another elective course 'Bio pesticides and Bio fertilizers 4(3+1)', should be dealt by Pathology and Soil Science faculty in combination. He also suggested to change the proposed skill enhancement course 'Commercial Horticulture 2(0+2)' to be offered in second semester of second year by 'Post-Harvest Processing Technology 2(0+2)' which need to be lead by Food Technology.
3. **Dr. T.V. Satyanarayana:** Graced the event through virtual mode and enlightened the importance and proficiency of 6<sup>th</sup> Deans' Committee report- marking as a benchmark of

National Education Policy in Agriculture Education System. He suggested to include relevant english topics under ability enhancement course ‘Communication Skills 2(1+1)’ which need to be dealt with the help of faculty from English department.

4. **Dr. J. Krishna Prasadji:** Suggested young faculty to take a thorough prime on the courses. He mentioned 6<sup>th</sup> Dean Committee report as transition from service oriented curriculum to entrepreneur oriented system. He suggested to clarify about 4<sup>th</sup> Year (NHEQF Level 6) in classification of level of courses with targeted outcomes and exit options. He also discussed about provisions and guidance for online courses at VIAT, VFSTR to which Dean (AAA) confirmed about availability of a monitoring team specifically for online courses offered through SWAYAM and other platforms. As per examination and evaluation system of 6<sup>th</sup> Deans’ committee report, two quizzes per semester need to be conducted for improvement of students having scores below 50%. But, he suggested to offer only 1 quiz or choose any one better out of 2 quizzes to be conducted. Likewise, he also suggested to modify the note given as per, Uniform Evaluation and Grading System (If a student Passes in a Subject in a second attempt the grade point for the subject in the 2<sup>nd</sup> attempt will only be considered) as it is not optional.

Furthermore, he also informed to correct the credit hours of Crop Production Technology-I and Crop Production Technology-II as 3(1+2) instead of 3(2+1). He also suggested for addition of management of major pests and diseases of crops dealing in the courses ***Crop Production Technology-I (Kharif crops), Crop Production Technology-II (Rabi crops), Production Technology of Fruits and Plantation crops and Production Technology of Vegetables and Spices*** to justify the certificate course to the students who may exit during 1<sup>st</sup> or 2<sup>nd</sup> year. This creates fulfilment of course contents and to impart knowledge to the students. He pointed that the course ‘***Environmental Studies and Disaster Management***’ offered during Second Semester of First Year, need to be handled by Crop Physiology department as lead department in collaboration with Agronomy. He also recommended to include topic related to ‘***epidemics in history***’ in the same course.

After thorough discussions by all the experts, it is finalized that following courses to be offered as Skill Enhancement Courses (SECs) during 1<sup>st</sup> year as per 6<sup>th</sup> Dean Committee report. The courses are finalised collectively based on the availability of facilities for practices.

| S. No. | Course Title                    | Offering Year and Semester | Department/ Faculty to deal the course                    |
|--------|---------------------------------|----------------------------|---|
| 1.     | Soil, Plant and Water Testing   | 1.1                        | Soil Science & Agricultural Chemistry and Crop Physiology |
| 2.     | Horticulture Nursery Management | 1.1                        | Horticulture  |
| 3.     | Agriculture Waste Management    | 1.2                        | Agronomy and Soil Science & Agricultural Chemistry        |
| 4.     | Organic Production Technology   | 1.2                        | Agronomy  |

Recommended to initiate the facilities to avail practices for SEC ‘Mushroom Production Technology’ which is suggested to offer during 2<sup>nd</sup> year.

**The following resolutions made after the discussion.**

- Mathematics:** The syllabus is acceptable, up to the mark and need to be dealt at 10+2 level.
- Statistics:** The syllabus is acceptable, up to the mark and need to be dealt in relevance to agriculture programme.
- Computer Science:** The syllabus is acceptable, up to the mark and need to be dealt in relevance to agriculture programme.
- Agronomy:**
  - Fundamentals of Agronomy (24AGRO101):** The title for M2U1 has to be modified as ‘*Water Resources and Types of Water*’.
  - Farming Based Livelihood Systems (24AGRO102):** The lecture outline need to be finalized by discussing with other course related departments (Horticulture, livestock and poultry management, agricultural extension and economics) and the title of M2U2 has to be modified as ‘*Farming Systems Management*’.
  - Principles and Practices of Natural Farming (22AGRO202):** Since the course is newly introduced, the syllabus need to be kept as it is pointed in the ICAR 6<sup>th</sup> deans’ committee report. In practice of M1, *navadhanya and nakshtra concepts* need to be incorporated, practice number 3 has to be sub divided to increase the number of practice sessions and further, the concept of natural farming should be modified by discussing with Dr. K. S. Varaprasad.
  - Organic Production Technology (24SEC104):** The syllabus related to natural farming has to be removed and the practice components related to *site selection requirements, basics of pest management, buffer zones, organic certification and post-harvest management of the organic*

*products* need to be incorporated and should be submitted to Dr. K.P.C. Rao for final confirmation.

#### **5. Soil Science and Agricultural Chemistry:**

- i. **Fundamentals of soil science (24SSAC121):** the topics such as the *soil biological properties like soil biology, biomass, flora and fauna their important characteristics, chemical properties like C:N ratio of commonly available organic residues and significance of C:N ratio in soil fertility* under theory; *estimation of organic matter content in soil and determination of soil strength by cone penetrometer* under practice should be added as these were part of 5<sup>th</sup> Deans' committee syllabus. The soil physics topics need to be shifted to M1U2 and the title of M2U2 has to be modified as '*Soil Taxonomy and Soil Biology*'.
- ii. **Soil Fertility Management (24SSAC122):** The topics such as *nutrient interactions on crop growth* in theory; *preparation of solutions for soil sample analysis and estimation of available Cu, Fe, Mn* in practice, should be added as these were also the part of 5<sup>th</sup> Deans' committee syllabus.

#### **6. Entomology:**

- i. **Fundamentals of Entomology (24ENTO131):** The title of M2U2 has to be named as *Taxonomy*, the basics pertaining to the insecticide formulations, pesticide appliances and their maintenance should also be dealt in theory in view of the students opted for the UG certificate and UG Diploma courses. One additional practical class regarding the characters of order *Acari* should be incorporated.
- ii. **Beneficial Insect Farming (24SEC105):** The number of practices for the sericulture need to be reduced, the content regarding *rearing of Muga silkworm on castor* should be added and *visits to nearby silkworm rearing and bee keeping units* have to be combined to acquaint with other suitable practices under sericulture and apiculture, respectively. Instead of one separate practice on mass multiplication of *Corcyra cephalonica*, two more on mass multiplication of *egg parasitoid, and pollinators and edible insects* should also be included.

#### **7. Crop Physiology:**

No major changes are suggested and it has been accepted as it is presented.

## 8. Plant Pathology:

- i. **Fundamentals of Plant Pathology (24PATH171):** A part of content of M1U1 need to be shifted to M2U2.
- ii. **Mushroom Production Technology (24SEC106):** Should be *offered during 2<sup>nd</sup> year* rather than 1<sup>st</sup> year which provides surplus time for establishment of mushroom production unit.

## 9. Horticulture:

- i. **Fundamentals of Horticulture (24HORT181):** The topics such as *identification of high-density planting, use of rootstocks, vegetable gardens, and ornamental gardens; Types, parts, and the concept of lawn making* should be included as theory component. As like, *identification of garden tools, preparation of nursery beds (raised and flat beds), sowing of seeds, transplanting and care of vegetable seedlings; layout of kitchen garden and visits to commercial nurseries/ orchards* should be included as practice content since they were the part of syllabus in 5<sup>th</sup> deans' committee syllabus.
- ii. **Horticulture Nursery Management (24SEC102):** Since the course outline of the theory part proposed aligns with the core courses of the department specifically with Fundamentals of Horticulture, it has to be *reframed carefully to avoid any repetition of topics from the core course*. In practice, a new topic '*Preparation of plant growth regulators for seed germination and vegetative Propagation*' emphasizing on hormonal powders, hormonal solutions, hormonal pastes, precautions and methods of application, need to be included.

## 10. Agricultural Extension:

- i. **Rural Sociology and Educational Psychology (24AEXT191):** The title of M1U1 need to be changed as '*Basics of Rural Sociology and Extension*'.
- ii. **Communication Skills (24AEC111):** As theory component, *reading comprehension and tenses* in consultation with Dr. Sharada Devi, Professor of the English Department need to be incorporated. Similarly, as practice component, *negotiation skills and time management* need to be inserted in M2U2.

Finally, the following four major decisions were taken with respect to adopting the revised curriculum of B.Sc. (Hons.) Agriculture programme in VFSTR as per the ICAR 6<sup>th</sup> Deans' committee report in tune with NEP 2020.

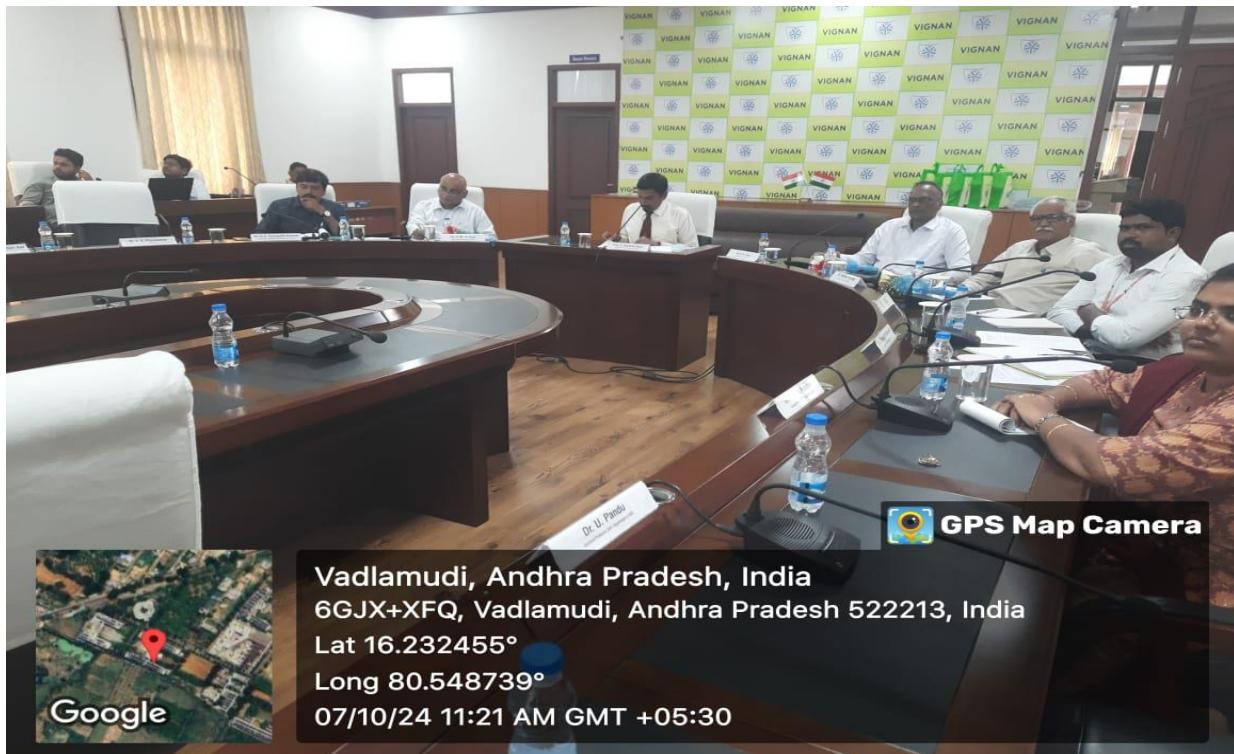
- i. The non gradial course ‘Introductory Mathematics 1(1+0)’ will be offered as gradial with 1(0+1) credits during the first semester of first year.
- ii. The per cent change in the curriculum for the academic year 2024-25 varied for 10.53 % which is mainly due to the restructuring the courses for first year as per the implementation of the ICAR’s 6<sup>th</sup> Deans Committee Report from the academic year 2024-25.
- iii. A single course ‘Machine Learning through Python’ as 3(2 + 1) credits will be offered in second semester of second year which combines the syllabus of all the three existing IoT courses *viz.*, Python Programming, Machine Learning and Statistical Methods with Data Visualization.
- iv. As per the ICAR 6<sup>th</sup> Deans' Committee report, the four years' degree program, originally set at 167 credits, will now run with 171 credits following the inclusion of 4 additional IoT based credits.
- v. The Skill Enhancement Courses (SECs) namely ‘*Soil, Plant and Water Testing*’ and ‘*Horticulture Nursery Management*’ will be offered during first semester of 1<sup>st</sup> year, while, ‘*Agriculture Waste Management*’ and ‘*Organic Production Technology*’ will be offered during second semesters of 1<sup>st</sup> year.

**Closing remarks:** The chairperson of the meeting Dr. T. Ramesh Babu, extended congratulations to all the experts for orchestrating a strong turnout, recognizing the importance of collective presence on 6<sup>th</sup> Dean Committee Report by all faculty members. At the end of session, member secretary Dr. T. Naresh proposed the vote of thanks to all the members of board and staff.

**Member Secretary**

**Chairperson**





**6<sup>th</sup> Board of Studies Meeting of the Vignan Institute of Agriculture and Technology on 07<sup>th</sup> October, 2024.**