

VIGNAN INSTITUTE OF AGRICULTURE AND TECHNOLOGY

Date: 21.03.2024





Minutes of Board of Studies Meeting


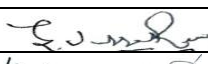


The Fifth Board of Studies (BoS) meeting for the B.Sc. (Hons.) Agriculture Program was held on March 21, 2024, from 9:30 a.m. to 7:30 p.m. The meeting was conducted in a blended format: some participants attended in person at the Board Room at the fifth floor of A Block, VFSTR, while others joined virtually *via* a Zoom meeting using the following link: <https://us06web.zoom.us/j/83110438004?pwd=eolXsMyEapkeB9cKgBur3L65Chl6gl.1>. The event was presided over by Prof. T. Ramesh Babu, Chairperson of the Board of Studies, Dean, VIAT, VFSTR.

Agenda of the BoS Meeting:

1. Reorientation of the Semester wise Courses of B.Sc. (Hons.) Agriculture.
2. Restructuring of the Course Content of B.Sc. (Hons.) Agriculture discipline wise

The following members were present either thorough offline or online.

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	Research Expert	
3	Dr. T. V. Satyanarayana	Registrar, MNR University, Hyderabad	Academia Expert (Online)	
4	Dr. Srinivasa Parimi	Regional Resistance Management Lead, Asia Pacific, Bayer Crop Science, Singapore	Industry expert (Invitee)	
5	Dr. Tarak Dhurjati	Senior Vice President, Nuziveedu Seeds Pvt. Ltd.	Industry expert (Invitee) (Online)	
6	Dr. L. V. Subba Rao	Professor of Practice, VIAT	Invitee	
7	Dr. C. Chandrashekhara Rao	Professor of Practice, VIAT	Invitee	

8	Dr. Krishna Prasadji	Visiting Professor, VIAT	Invitee	
9	Dr. G. Subba Rao	Visiting Professor, VIAT	Invitee	
10	Dr. K. Kareemulla	Visiting Professor, VIAT	Invitee	
11	Dr. S. V. Prasad	Visiting Professor, VIAT	Invitee	
12	Dr. Y. Varaprasad	Associate Director, VIAT	Internal member	
13	Dr. M. Chandra Surya Rao	Farm Superintendent, VIAT	Internal Member	
14	Dr. Rajanand Hiremath	BoA Member, VIAT	Invitee	
15	Dr. G. Siva Nagaraju	BoR Member, VIAT	Invitee	
16	Dr. P. Sushmita	Assistant Professor, Genetics and Plant Breeding, VIAT	Invitee	
17	Dr. Harisha N.	Assistant Professor, VIAT	Invitee	
18	Dr. T. Naresh	Assistant Professor, Entomology, VIAT	Member Secretary	

Dr. Rajanand Hiremath, Board of Academics (BoA) Member, welcomed the external and internal Board of Studies (BoS) members from the Vignan Institute of Agriculture and Technology, as well as special invitees who were experts from the industry and academia. As Chairperson, Dr. T. Ramesh Babu extended a warm welcome to all members of the BoS and esteemed special invitees. He also 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 VIAT. He also discussed the actions initiated based on the outcomes of the Fourth Board of Studies meeting. Additionally, he outlined plans to improve existing courses and programs in consultation with renowned academicians and industry experts, incorporating necessary amendments. Below are some highlights from the VIAT.

The following highlights summarize the activities and initiatives undertaken by the VIAT, VFSTR:

- i. **R22 Regulations:** The B.Sc. (Hons.) Agriculture course.
- ii. **RAWE and Experiential Learning:** An action plan for Rural Agricultural Work Experience (RAWE) and Experiential Learning Programs for final year B.Sc. (Hons.) Agriculture students is

being developed in collaboration with ANGRAU, including the provision of stipends as per ICAR norms.

- iii. **Ambassador Interaction:** Mr. Naor Gilon, H.E., Ambassador of Israel in India, interacted with B.Sc. (Hons.) Agriculture students on January 10, 2024.

Submission of two Centre of Excellence (CoEs) under Indo-Israel Agricultural Project as detailed below:

- a. Centre of Excellence for Cut Flower Production in Guntur District of Andhra Pradesh (Rs. 928.37 lakhs).
 - b. Centre of Excellence for Vegetable Crop Production in Guntur District of Andhra Pradesh (Rs. 1010.80 lakhs).
- iv. **Educational Tours:** The successful completion of educational tours for B.Sc. (Hons.) Agriculture students as part of the course curriculum to provide practical exposure.
- v. **Exposure Visits:** Students participated in an exposure visit to the Kisan Mela and Agri-Tech Exhibition at ANGRAU, as well as agro-based industrial visits.
- vi. **High-Tech Nursery and TOFI:** The VIAT collaborated with CIFOR-ICRAF, funded by USAID, on High-Tech Nursery and Trees Outside Forest in India (TOFI), as well as Tree-Based Enterprise Incubation Centre (TBEIC).
- vii. **Incubation Centre Visits:** Visited to the Incubation Centre at Mettupalayam, Coimbatore, and ITC, Bhadrachalam, Telangana for the effective execution of the High-tech nursery under TOFI Project on the farm.
- viii. **Collaborations and MoUs:** The VIAT established collaborations and Memoranda of Understanding (MoUs) with international and national institutes and agro-industries.
- ix. **Industry-Academia Interaction:** The outcome of an Industry-Academia interaction held on February 14, 2024, highlighted the importance of bridging the gap between academic research and industry needs.
- x. **School Research Board Meeting:** The second School Research Board meeting was presided over by Dr. Ravi Ketharpal, Executive Director of APAARI, which was held on February 14, 2024.
- xi. **Ongoing Farm Activities:** Ongoing activities and plans are taking place at the Lara Green farm at VIAT focusing on sustainable and innovative agricultural practices.
- xii. **Farm Produce:** The VIAT distributed farm produce among the faculty, students and supplied to hostels for supporting the local food system.

- xiii. **Village Adoption Programme:** Activities are undertaken in adopted villages Vejendla and Vadlamudi as a part of the Village Adoption Programme, which aim to improve good agricultural practices and support local communities.

The action initiated on the outcomes of the 4th Board of Studies held on May 23, 2023, is as follows:

The Dean, VIAT presented the curriculum for Ph.D. program, which adheres to the Broad Subject Matter Area (BSMA) guidelines of Indian Council of Agricultural Research (ICAR). He also discussed the conversion of IT-oriented courses from binary-graded to gradial courses.

Highlights from the meeting include:

- i. **Visiting Professors and Professors of Practice:** The VIAT has recruited five Visiting Professors and two Professors of Practice to guide the Ph.D. scholars.
- ii. **Ph.D. Research Scholars:** Registered ten Ph.D. research scholars in various disciplines such as
 - Agronomy - 4
 - Genetics and Plant Breeding - 2
 - Soil Science and Agricultural Chemistry - 1
 - Plant Pathology - 1
 - Horticulture - 1
 - Agricultural Extension - 1

Financial Support: VFSTR provides financial support for various teaching and research positions:

- CAP (Contractual Assistant Professor) handling 10-12 credit hours per week, compensated at Rs. 40,000 per month.
- TRA (Teaching cum Research Assistantship) handling 8-10 credit hours per week, compensated at Rs. 32,000 per month.
- ERA (Exclusive Research Assistantship) handling 6-8 credit hours per week, compensated at Rs. 26,000 per month.

Initial Remarks:

1. Dr. K.P.C. Rao, Honorary Fellow (Retd.) at ICRISAT, Hyderabad, suggested reviewing syllabi and modifying the curriculum according to ICAR's 5th Dean's Committee guidelines.
2. Dr. T.V. Satyanarayana, Registrar of MNR University, Hyderabad and former Registrar of ANGRAU, emphasized the addition of value-added and multidisciplinary courses to the B.Sc.

(Hons.) Agriculture program. He appreciated the 'Curriculum and Credit Framework for Undergraduate Programmes (CCFUP)' developed by UGC and stressed the importance of skill enhancement and research competencies for students.

3. Dr. Srinivas Parimi, Regional Resistance Management Lead at Bayer Crop Science Pvt. Ltd., Singapore, suggested incorporating artificial intelligence in undergraduate courses and preparing course curriculum and study materials for digital learning.

Overall, the meeting focused on reviewing and enhancing the curriculum, promoting interdisciplinary studies, and strengthening the quality of education and research in the VIAT.

The following resolutions made after the discussion:

1. Horticulture

In the existing current structure, *Fundamentals of Horticulture (22HORT181)* is being offered to first-year A Section students during odd semester and to first-year B Section students during even semester. Similarly, *Production Technology of Fruits and Plantation Crops (22HORT 182)* is allocated to first-year B Section students during odd semester and to first-year A Section students during even semester. *Fundamentals of Horticulture* covers basic concepts and fundamental principles related to the production technologies of horticultural crops.

Hence, Dr. T. Naresh, Assistant Professor, Entomology, proposed that *Fundamentals of Horticulture (22HORT181)* need to be offered to both A and B Sections during the odd semester of the first year of the B.Sc. (Hons.) Agriculture program and *Production Technology of Fruits and Plantation Crops* during the even semester for both the A and B batches. This change aims to streamline the course schedule and to ensure a consistent learning experience for all students in the program. Both the courses are 1 + 0 + 2 and hence, total credits in the respective semesters will be the same.

2. IT Oriented Courses

The course *Python Programming (22AB201)* is currently being offered to second-year A Section students during the odd semester, and to second-year B Section students during the even semester. Conversely, *Statistical Methods with Data Visualization (22AB202)* is offered to first-year B Section students during the odd semester and to first-year A Section students during the even semester.

It is felt that *Python Programming (22AB 201)* is a prerequisite for enrolling in *Statistical Methods with Data Visualization (22AB 202)*. It is proposed that *Python Programming (22AB 201)* need to be offered for both A and B sections during the odd semester of the second year of the B.Sc. (Hons.) Agriculture program, and subsequently, *Statistical Methods with Data Visualization (22AB 202)* during the even semester for both A and B batches.

This change proposed to ensure that all students have the necessary programming skills from the *Python Programming* course before they proceed to the *Statistical Methods with Data Visualization* course. By offering Python Programming to all students in the odd semester of their second year, it will create a more consistent and efficient learning progression within the program. Both the courses are 1 + 0 + 2 and hence, total credits in the respective semesters will be the same.

3. Agricultural Economics

Agricultural Finance and Cooperation (22AECO241) is being offered in the second year odd semester for A Batch and in the second year even semester for B Batch. *Farm Management and Resource Production Economics (22AECO341)* is being offered during the third year even semester for A Batch and the third year odd semester for B Batch.

Since *Farm Management and Resource Production Economics (22AECO341)* deals with the basic concepts of farm production economics, it is considered as a prerequisite for registering the *Agricultural Finance and Cooperation (22AECO241)* course.

Hence, it is proposed to offer *Farm Management and Resource Production Economics (22AECO341)* during the second year as *(22AECO241)* in place of *Agricultural Finance and Cooperation (22AECO241)* and to offer *Agricultural Finance and Cooperation (22AECO241)* during third year in place of *Farm Management and Resource Production Economics as 22AECO 341*. Both the courses are 1 + 0 + 2 and hence, total credits in the respective semesters will be the same.

4. Plant Pathology:

Dr. J. Krishna Prasadji, Visiting Professor of Plant Pathology, suggested a modification regarding the course Fundamentals of Plant Pathology I (22PATH 171). Currently, this course is offered during the first-year even semester as two-credit course (1+0+2). However, he proposed to offer the course as three-credit course (1+2+2) as it provides more in-depth knowledge to the students about the basic and fundamental aspects related to Plant Pathology. To accommodate this change, one credit will be reallocated from the course Principles of Integrated Pest and

Disease Management (22PATH 373), which is offered during the odd semester of the third year of the B.Sc. (Hons.) Agriculture program as a three-credit course (1+0+4).

Since the maximum allotted course credit load per semester is restricted to 25, this adjustment exceeds it. Therefore, to maintain 25 credits during both the odd and even semesters of the first year, the course Rural Sociology and Educational Psychology (22AEXT191), currently offered as a two-credit course (1+0+2) during the odd semester, will be relocated to the even semester. In its place, a modified version of 22PATH171 offered as a three-credit course (1+2+2), will be introduced. These adjustments will ensure the maintenance of 25 credits in each semester of the first year and 24 credits during the odd semester of the third year of the B.Sc. (Hons.) Agriculture. He also advised to reallocate the course credits of Fundamentals of Plant Pathology-II (22PATH271) as 1+0+2 from the existing credits 2+0+0.

5. Suggestions given by the experts and invitees in restructuring of the course content

I. Agronomy:

Agricultural Heritage (22AGRO101): The title of M1U1 need to be changed as ‘Introduction to Agricultural Heritage’, the repeated content from M2U1 has to be removed and part of the content from M1U1 is to be shifted to M2U2.

Fundamentals of Agronomy (22AGRO102): The title of M1U1 need to be changed as ‘Tillage and Crop Establishment’ and the term ‘variation in temperature’ has to be removed from the title of M1U2.

Farming Systems and Sustainable Agriculture (22AGRO203): The content ‘Lac culture, Mushroom Production, Moriculture and Silkworm Rearing’ need to be removed from the curriculum while, the topic ‘Fisheries’ has to be included.

Irrigation Water Management (22AGRO204): The title of M1U1 need to be modified as Irrigation Methods.

Geoinformatics and Nanotechnology for Precision Farming (22AGRO301): The use of remote sensing and GIS need be restricted to the analysis and management of problematic soils only.

Rainfed Agriculture and Watershed Management (22AGRO303): The content related to NICRA projects need to be included in the course content.

II. Soil Science:

Fundamentals of Soil Science (22SSAC121): The topic ‘Soil Taxonomy’ has to be shifted from M2U2 to M1U2.

III. Agriculture Engineering:

Soil and Water Conservation Engineering (22AENG151): The topic ‘Soil Loss Measurement Technique’ need to be removed from M1U1.

Farm Machinery and Power (22AENG251): The content on ‘Familiarization of Cotton Pickers and Chilli Driers’ and ‘Precision Agriculture and the Use of Robotics in Irrigation’ has to be incorporated in M2U2.

Renewable Energy and Green Technology (22AENG252): The content on ‘Solar Photovoltaic (SPA)’ and ‘Basics of Biochar and Pyrolysis for the Monetization of Carbon Credits’ need to be added in M2U1.

IV. Genetics and Plant Breeding:

Fundamentals of Genetics (22GPBR111): In M2U2, the content on the ‘Central Dogma of Life’ need to be included and the topic on ‘Numerical Aberrations" (such as aneuploids, monosomics, trisomics, and nullisomics and their analysis) need to be removed.

Crop Improvement-II (22GPBR312): The term ‘Narcotics’ has to be replaced by the specific crop name ‘Tobacco’ since it is more relevant. The crops like Ashwagandha and Aloe vera need to be added under the medicinal crops category while, Fodder Crops and Cassava have to be removed from the category of starch crops.

Principles of Seed Technology (22GPBR314): The topic ‘Transgene Contamination’ need to be reframed as ‘Unintended Presence of GM and Non-GM Crops’ as it is more scientifically accurate.

V. Entomology:

Fundamentals of Entomology I (Insect Morphology and Taxonomy) (22ENTO131): The title of M2U1 need to be changed as ‘Physiological Systems and Taxonomy’.

Fundamentals of Entomology II (Insect Ecology and Concepts of IPM) (22ENTO231): The course content need to be arranged according to the ICAR course structure.

Pests of Field Crops and Stored Grains and their Management (22ENTO331): The title of M1U1 need to be changed as ‘Biology and Bionomics of Field Crop Pests’ while, M1U2 title as ‘Nature, Symptoms of Damage, and Management of Insect Pests of Field Crops’.

Pests of Horticultural Crops and their Management and Beneficial Insects (22ENTO332): The title of M1U1 need to be changed as ‘Biology and Bionomics of Horticultural Crop Pests’ and M1U2 title as ‘Nature, Symptoms of Damage, and Management of Horticultural Crop Pests’.

Bio Pesticides and Bio Fertilizers (22ELCT333): The topic ‘Mass Production Technology’ in M2U2 need to be reframed as ‘Production and Application of Bio Pesticides and Bio Fertilizers’.

VI. Horticulture:

Production Technology of Fruits and Plantation Crops (22HORT182): The crops cherry and kiwi need to be removed while, the crop custard apple need to be added in M1U2. Likewise, avocado need to be removed while, cocoa need to be add in M2U2.

Production Technology of Fruits and Plantation Crops (22HORT282): The subtitle ‘Production Technology’ need to be removed in both M1 and M2.

Soilless Farming (22ELCT284): The relevant crops to hydroponics and aquaponics systems need to be included in M1U2.

Post-harvest Management and Value Addition of Fruits and Vegetables (22HORT381): The subtitle ‘Principles and Methods of Preservation.’ need to be removed from M2U1.

VII. Crop Physiology:

Environmental Studies and Disaster Management (22CPHY361): The information on ‘Famine (causes, effects, historical instances and potential strategies for prevention and management)’ need to be included in the relevant section of the course content.

VIII. Plant Pathology:

Fundamentals of Plant Pathology-I (22PATH171): The title of M1U1 need to be rephrased as ‘History of Plant Pathology and Characteristics of Fungi’.

IX. Agricultural Extension:

Fundamentals of Agricultural Extension (22AEXT 291): ‘Impact Assessment Concept’ need to be included in the syllabus.

X. Agricultural Economics:

Fundamentals of Economics (22AECO141): The concept of ‘Law of Equi Marginal Utility’ has to be checked to ascertain whether it is present in the existing syllabus or not.

Agricultural Finance and Cooperation (22AECO241): The latest topic of FPOs concept need to be included in course content.

Agribusiness Management (22ELCT342): New agricultural policies need to be added as per ICAR syllabus.

Based on the feedback from various stakeholders and suggestions provided by the members, the Chairperson of the Board of Studies (BoS) stated that the valuable

recommendations will be appropriately integrated into the curriculum and syllabi of the R22. This revised curriculum and syllabi will then be recommended to the Academic Council of VFSTR for approval.

The meeting concluded at 7:30 p.m. with no further points for discussion. Dr. Harisha N., Assistant Professor, Agricultural Extension from the VIAT, expressed gratitude through closing remarks and extended vote of thanks to the Chairperson, external and internal members of the Board of Studies (BoS), special invitees, and the faculty of the VIAT.

Member Secretary

Chairperson





5th Board of Studies Meeting of the Vignan Institute of Agriculture and technology on 21st March, 2024.