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GWALIOR • MP • INDIA

"CELEBRATING DREAMS"

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# School of Agriculture

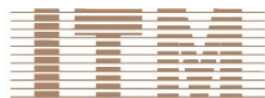
## CRITERIA 1

### SUB CRITERIA 1.3.4

#### Details of Students undertaking Projects/Internship

Academic Year 2020-2021

  
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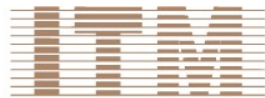
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**School Of Agriculture**  
**Total Number of Projects in UG and PG**

| <b>Sr. No.</b> | <b>Programme</b>                        | <b>Course Code</b>                                      | <b>Total Number of students<br/>Involved in projects</b> |
|----------------|-----------------------------------------|---------------------------------------------------------|----------------------------------------------------------|
| <b>1</b>       | <b>B.Sc. (Hons.)<br/>Agriculture</b>    | AGRON(E)-421<br>AGRON(E)-422<br>GPB(E)-421<br>SS(E)-421 | <b>170</b>                                               |
| <b>2</b>       | <b>M.Sc. Agriculture<br/>(Agronomy)</b> | AGRON-560                                               | <b>6</b>                                                 |

  
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### **Experiential Learning Programme (ELP)**

Experiential Learning (EL) with business mode helps the student to develop competence, capability, capacity building, acquiring skills, expertise, and confidence to start their own enterprise and turn job creators instead of job seekers. This is a step forward for “Earn while Learn” concept. Experiential Learning is an important module for high quality professional competence and practical work experience in real life situation to Graduates. The module with entrepreneurial orientation of production and production to consumption pattern is expected to facilitate producing Job Providers rather than Job Seekers. The EL provides the students an excellent opportunity to develop analytical and entrepreneurial skills, and knowledge through meaningful hands-on experience, confidence in their ability to design and execute project work. The main objectives of EL are:

- To promote professional skills and knowledge through meaningful hands-on experience.
- To build confidence and to work in project mode.
- To acquire enterprise management capabilities.

This program will be undertaken by the students preferably during the eighth semester for a with a weightage of 0+20 credit hours..

  
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**STUDY AND EVALUATION SCHEME**  
 (SUBJECT-WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Programme: BSc\_HonsAgriculture(BSc\_HonsAgriculture) Semester: 8<sup>th</sup>

Batch: 2017-2021

| Sub Code        | Sub Name                                                                                          | L/T/P | Int. Ass. Marks | Ext. Marks | Total Marks | Credit | Credit 2 |
|-----------------|---------------------------------------------------------------------------------------------------|-------|-----------------|------------|-------------|--------|----------|
| AGRON(E)-421[T] | Crop Production(Integrated Farming System)                                                        |       | 0               | 100        | 100         |        | 5        |
| AGRON(E)-422[T] | Crop Production: Water Management( Watershed, Micro-irrigation, Utilization of Problematic Water) |       | 0               | 100        | 100         |        | 5        |
| GPB(E)-421[T]   | Genetics and Plant Breeding                                                                       |       | 0               | 100        | 100         |        | 5        |
| SS(E)-421[T]    | Bio-Fertilizer                                                                                    |       | 0               | 100        | 100         |        | 5        |

  
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### List of Experiential Learning Programme

| S. No. | Courses Title                                                                                      | Courses Code   |
|--------|----------------------------------------------------------------------------------------------------|----------------|
| 1      | Crop Production (Integrated Farming System)                                                        | AGRON (E)- 421 |
| 2      | Crop Production: Water Management (Watershed, Micro-Irrigation, Utilization of Problematic Water ) | AGRON (E)-422  |
| 3      | Genetics and Plant Breeding                                                                        | GPB (E)-421    |
| 4      | Bio- Fertilizer                                                                                    | SS (E) 421     |

  
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|                                   |                                                                 |                       |
|-----------------------------------|-----------------------------------------------------------------|-----------------------|
| <b>Course Code: ELP-AGRON-421</b> | <b>Course Name: Crop Production (Integrated Farming System)</b> | <b>Semester: VIII</b> |
|-----------------------------------|-----------------------------------------------------------------|-----------------------|

| Credits                 | L | T | P  | Marks | Contact Hours (per week)            | Independent Study Hour (per week)      | Section (Group)                           |
|-------------------------|---|---|----|-------|-------------------------------------|----------------------------------------|-------------------------------------------|
| 10                      | 0 | 0 | 10 |       | 20                                  |                                        | <b>B.Sc. (Hons) Agri</b>                  |
| <b>Curriculum level</b> |   |   |    |       | Applied and Innovative skills based | <b>Student-specific course outcome</b> | Research<br>Placement<br>Entrepreneurship |


**Objective:** To enable students to design, implement, and evaluate sustainable integrated farming systems for optimizing resources and meeting socio-economic and environmental goals.

**Course outcomes:** Through this course, students will be able to:

|      |                                                                                  |
|------|----------------------------------------------------------------------------------|
| CO-1 | Develop knowledge of Integrated Farming Systems (IFS) principles and components. |
| CO-2 | Apply scientific approaches for sustainable crop and resource management.        |
| CO-3 | Design and implement region-specific, viable integrated farming models.          |
| CO-4 | Analyze economic returns and risk mitigation strategies in IFS.                  |
| CO-5 | Promote eco-friendly and sustainable agricultural practices.                     |

**Modules detail:**

| Module No.                | Module Title                                                                                                | Assessment tools                                                                                                                                                                                                                                                        |
|---------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module-01                 | Introduction to Integrated Farming Systems (IFS)                                                            | <ul style="list-style-type: none"> <li>Students' progress will be assessed comprehensively through the continuous evaluation process.</li> <li>Modules/Practical's outcomes-based evaluation</li> <li>Attendance</li> <li>Presentation and report submission</li> </ul> |
| Module-02                 | Design and Planning of IFS Models                                                                           |                                                                                                                                                                                                                                                                         |
| Module-03                 | Crop Diversification and Management                                                                         |                                                                                                                                                                                                                                                                         |
| Module-04                 | Livestock Integration in IFS                                                                                |                                                                                                                                                                                                                                                                         |
| Module-05                 | Organic Waste Recycling and Composting                                                                      |                                                                                                                                                                                                                                                                         |
| Module-06                 | Agroforestry and Horticultural Integration                                                                  |                                                                                                                                                                                                                                                                         |
| Module-07                 | Renewable Energy in IFS                                                                                     |                                                                                                                                                                                                                                                                         |
| Module-08                 | Economic Evaluation of Integrated Farming Systems                                                           |                                                                                                                                                                                                                                                                         |
| Module-09                 | Risk Management in IFS                                                                                      |                                                                                                                                                                                                                                                                         |
| Module-10                 | Eco-friendly and Sustainable Practices                                                                      |                                                                                                                                                                                                                                                                         |
| <b>Suggested reading:</b> | 1. <b>"Integrated Farming Systems: Practices and Economics"</b> by M. P. Singh, R. K. Singh and R. C. Singh |                                                                                                                                                                                                                                                                         |

  
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|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | <ol style="list-style-type: none"><li>2. <b>"Farming Systems and Sustainable Agriculture"</b> by S. S. Walia, D. S. Chahal, and P. Kaur</li><li>3. <b>"Agriculture for Sustainable Development: Principles and Practices"</b> by Gurbir S. Bhullar and Navreet K. Bhullar</li><li>4. <b>"Principles of Agronomy for Sustainable Agriculture"</b> by S. R. Reddy</li><li>5. <b>"Sustainable Agriculture and Integrated Farming Systems"</b> by H. S. Gupta and R. Prasad</li></ol>                                                                                                                                                                       |
| <b>Suggested e-resources (Websites/e-books)</b> | <ol style="list-style-type: none"><li>1. <a href="https://www.ifad.org/documents/d/new-ifad.org/ifs_manual-pdf">https://www.ifad.org/documents/d/new-ifad.org/ifs_manual-pdf</a></li><li>2. <a href="https://www.agrifarming.in/integrated-farming-system-types-advantages-example-and-pdf">https://www.agrifarming.in/integrated-farming-system-types-advantages-example-and-pdf</a></li><li>3. <a href="https://stm.bookpi.org/ATIFSSA/index">https://stm.bookpi.org/ATIFSSA/index</a></li><li>4. <a href="https://link.springer.com/chapter/10.1007/978-981-10-6934-5_6">https://link.springer.com/chapter/10.1007/978-981-10-6934-5_6</a></li></ol> |

  
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|                                   |                                                                                                                       |                       |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>Course Code: ELP-AGRON-422</b> | <b>Course Name: Crop Production: Water Management( Watershed, Micro-irrigation, Utilization of Problematic Water)</b> | <b>Semester: VIII</b> |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|

| Credits                 | L | T | P  | Marks | Contact Hours (per week)            | Independent Study Hour (per week)      | Section (Group)                           |
|-------------------------|---|---|----|-------|-------------------------------------|----------------------------------------|-------------------------------------------|
| 10                      | 0 | 0 | 10 |       | 20                                  |                                        | <b>B.Sc. (Hons) Agri</b>                  |
| <b>Curriculum level</b> |   |   |    |       | Applied and Innovative skills based | <b>Student-specific course outcome</b> | Research<br>Placement<br>Entrepreneurship |

**Objective:** To equip students with knowledge and skills in watershed management, micro-irrigation, and utilization of problematic water for sustainable crop production and resource optimization.

**Course outcomes:** Through this course, students will be able to:

|      |                                                                                                                                          |
|------|------------------------------------------------------------------------------------------------------------------------------------------|
| CO-1 | Students will understand the watershed management principles for efficient water conservation and utilization in agriculture.            |
| CO-2 | They will apply micro-irrigation techniques, such as drip and sprinkler systems, to improve water-use efficiency                         |
| CO-3 | Develop strategies to manage and utilize problematic water sources, including saline, alkaline, and wastewater.                          |
| CO-4 | They will assess the impact of water management practices on crop productivity, soil health, and sustainability.                         |
| CO-5 | Through hands-on learning, Students will design and implement effective water management plans for different agro-ecological conditions. |

**Modules detail:**

| Module No. | Module Title                                           | Assessment tools                                                                                                                                 |
|------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Module-01  | Introduction to Water Management in Agriculture        | <ul style="list-style-type: none"> <li>Students' progress will be assessed comprehensively through the continuous evaluation process.</li> </ul> |
| Module-02  | Watershed Management Principles                        |                                                                                                                                                  |
| Module-03  | Water Resource Assessment and Planning                 |                                                                                                                                                  |
| Module-04  | Micro-irrigation Systems: Drip and Sprinkler           |                                                                                                                                                  |
| Module-05  | Water Use Efficiency and Crop Water Requirements       |                                                                                                                                                  |
| Module-06  | Soil-Water-Plant Relationships                         | <ul style="list-style-type: none"> <li>Modules/Practical's outcomes-based evaluation</li> </ul>                                                  |
| Module-07  | Water Management in Different Agro-Ecological Zones    |                                                                                                                                                  |
| Module-08  | Integrated Water Resource Management (IWRM)            |                                                                                                                                                  |
| Module-09  | Impact of Irrigation on Soil Health and Sustainability | <ul style="list-style-type: none"> <li>Attendance</li> </ul>                                                                                     |
| Module-10  | Field Applications and Hands-on Training               | <ul style="list-style-type: none"> <li>Presentation and report submission</li> </ul>                                                             |

  
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|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| <b>Suggested reading:</b>                       | <ol style="list-style-type: none"> <li>1. <b>"Micro-Irrigation for Crop Production: Design, Operation, and Management"</b> by Megh R. Goyal</li> <li>2. <b>"Principles of Micro-Irrigation Engineering"</b> by Megh R. Goyal</li> <li>3. <b>"Management of Problematic Soils and Water for Sustainable Agriculture"</b> by A. K. Singh and S. K. Mishra</li> <li>4. <b>"Integrated Watershed Management in Rainfed Agriculture"</b> by Suhas P. Wani, Johan Rockstrom, and Kanwar Lal Sahrawat</li> <li>5. <b>"Irrigation and Water Resources Engineering"</b> by G.L. Asaw</li> </ol> |  |
| <b>Suggested e-resources (Websites/e-books)</b> | <ol style="list-style-type: none"> <li>1. <a href="https://link.springer.com/journal/11269">https://link.springer.com/journal/11269</a></li> <li>2. <a href="https://agrimoon.com/">https://agrimoon.com/</a></li> <li>3. <a href="https://www.waterworld.com/">https://www.waterworld.com/</a></li> <li>4. <a href="https://www.agriculturetoday.in/">https://www.agriculturetoday.in/</a></li> </ol>                                                                                                                                                                                 |  |

  
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|                                 |                                                 |                       |
|---------------------------------|-------------------------------------------------|-----------------------|
| <b>Course Code: GPB (E)-421</b> | <b>Course Name: Genetics and Plant Breeding</b> | <b>Semester: VIII</b> |
|---------------------------------|-------------------------------------------------|-----------------------|

| Credits                 | L | T | P  | Marks | Contact Hours<br>(per week)            | Independent Study<br>Hour (per week)       | Section (Group)                           |
|-------------------------|---|---|----|-------|----------------------------------------|--------------------------------------------|-------------------------------------------|
| 10                      | 0 | 0 | 10 |       | 20                                     |                                            | <b>B.Sc. (H)<br/>Agriculture</b>          |
| <b>Curriculum level</b> |   |   |    |       | Applied and Innovative<br>skills based | <b>Student specific<br/>course outcome</b> | Entrepreneurship<br>Research<br>Placement |

**Objective:** To provide hands-on training on seed production and selection methods for hybrid and varietal development.

**Course outcomes:** Through this course, students will be able to:

|      |                                                                                                      |
|------|------------------------------------------------------------------------------------------------------|
| CO-1 | Describe the importance seed production.                                                             |
| CO-2 | Explain the the selection models.                                                                    |
| CO-3 | Demonstrate development of hybrids and varieties.                                                    |
| CO-4 | Analyse the efficiency of various selection schemes in self and cross pollinated crops.              |
| CO-5 | Evaluate the the efficacy of the produce developed through various selection methods in SPC and CPC. |

**Modules detail:**

| Module No.                | Module Title                                                                                                                                                                                                                                                      | Assessment tools                                                                                                                                                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module-01                 | Floral structure and biology of Self Pollinated Crops                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>Students' progress will be assessed comprehensively through continuous evaluation process.</li> <li>Modules/Practicals outcomes based evaluation</li> <li>Attendance</li> <li>Presentation and report submission</li> </ul> |
| Module-02                 | Floral structure and biology of Cross Pollinated Crops                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                    |
| Module-03                 | Emasculation and artificial pollination in cereal crops                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                    |
| Module-04                 | Emasculation and artificial pollination in pulses and oilseeds                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                    |
| Module-05                 | Study of Pureline selection method                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                    |
| Module-06                 | Study of Mass selection method                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                    |
| Module-07                 | Study of Bulk Selection Method                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                    |
| Module-08                 | Study of Pedegree selection method                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                    |
| Module-09                 | Study of heterosis, inbreeding depression in single cross hybrids                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                    |
| Module-10                 | Study of Experimental design                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                    |
| <b>Suggested reading:</b> | <ol style="list-style-type: none"> <li><b>Allard, R. W. (1999).</b> <i>Principles of Plant Breeding</i>. John Wiley &amp; Sons.</li> <li><b>Hartl, D. L., &amp; Clark, A. G. (2007).</b> <i>Principles of Population Genetics</i>. Sinauer Associates.</li> </ol> |                                                                                                                                                                                                                                                                    |

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                        | <p>3. <b>Falconer, D. S., &amp; Mackay, T. F. C. (1996).</b> <i>Introduction to Quantitative Genetics.</i> Longman.</p> <p>4. <b>Kearsey, M. J., &amp; Pooni, H. S. (1996).</b> <i>The Genotype-Phenotype Relationship.</i> In <i>The Genetics of Quantitative Traits.</i> Chapman &amp; Hall.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>Suggested e-resources (Websites/e-books)</b></p> | <ol style="list-style-type: none"> <li>1. <a href="https://agritech.tnau.ac.in/pdf/HORTICULTURE.pdf">https://agritech.tnau.ac.in/pdf/HORTICULTURE.pdf</a></li> <li>2. <a href="https://www.slideshare.net/amritpalsingh477/commercial-horticulture">https://www.slideshare.net/amritpalsingh477/commercial-horticulture</a></li> <li>3. <a href="https://www.horticultureguruji.in/topic-1-definition-importance-scope-and-problems-in-vegetable-production-2/">https://www.horticultureguruji.in/topic-1-definition-importance-scope-and-problems-in-vegetable-production-2/</a></li> <li>4. <a href="https://www.horticultureguruji.in/lectur-introduction-importance-area-and-production-of-spices-%E0%A4%AE%E0%A4%B8%E0%A4%BE%E0%A4%B2%E0%A5%8B%E0%A4%82-%E0%A4%95%E0%A4%BE-%E0%A4%AA%E0%A4%B0%E0%A4%BF%E0%A4%9A%E0%A4%AF-%E0%A4%AE-2/">https://www.horticultureguruji.in/lectur-introduction-importance-area-and-production-of-spices-%E0%A4%AE%E0%A4%B8%E0%A4%BE%E0%A4%B2%E0%A5%8B%E0%A4%82-%E0%A4%95%E0%A4%BE-%E0%A4%AA%E0%A4%B0%E0%A4%BF%E0%A4%9A%E0%A4%AF-%E0%A4%AE-2/</a></li> <li>5. <a href="https://courseware.cutm.ac.in/courses/3244/">https://courseware.cutm.ac.in/courses/3244/</a></li> </ol> |

  
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|                                |                                    |                       |
|--------------------------------|------------------------------------|-----------------------|
| <b>Course Code: SS (E)-421</b> | <b>Course Name: Bio-fertilizer</b> | <b>Semester: VIII</b> |
|--------------------------------|------------------------------------|-----------------------|

| Credits                 | L | T | P  | Marks | Contact Hours<br>(per week)            | Independent Study<br>Hour (per week)       | Section (Group)                           |
|-------------------------|---|---|----|-------|----------------------------------------|--------------------------------------------|-------------------------------------------|
| 10                      | 0 | 0 | 10 |       | 20                                     |                                            | <b>B.Sc. (H)<br/>Agriculture</b>          |
| <b>Curriculum level</b> |   |   |    |       | Applied and Innovative<br>skills based | <b>Student specific<br/>course outcome</b> | Entrepreneurship<br>Research<br>Placement |

**Objective:** To provide hands on training on the production of bio fertilizer

**Course outcomes:** Through this course students will be able to:

|      |                                                                                                                                                                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CO-1 | Identify and differentiate between various types of biofertilizers, including nitrogen-fixing bacteria, mycorrhizal fungi, and phosphate-solubilizing microorganisms, and understand their roles in soil health and plant growth..                                       |
| CO-2 | Applying biofertilizers in agricultural practices, including soil incorporation, seed treatment, and foliar application, and will be able to evaluate the best practices for different crops and soil types.                                                             |
| CO-3 | Analyze the effects of biofertilizers on soil properties, including nutrient availability, microbial diversity, and soil structure, and will be able to assess the long-term benefits of using biofertilizers in sustainable agriculture.                                |
| CO-4 | Evaluate the environmental advantages of using biofertilizers over chemical fertilizers, including reduced chemical runoff, improved biodiversity, and enhanced ecosystem services, and will be able to articulate the importance of sustainable agricultural practices. |
| CO-5 | Designing and conducting experiments to test the efficacy of different biofertilizers, including data collection and analysis, and will be able to critically review scientific literature related to biofertilizer research and development                             |

**Modules detail:**

| Module No. | Module Title                                | Assessment tools                                                                                                                                                                                                       |
|------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module-01  | Introduction to Bio-fertilizers             | <ul style="list-style-type: none"> <li>Students' progress will be assessed comprehensively through continuous evaluation process.</li> <li>Modules/Practicals outcomes based evaluation</li> <li>Attendance</li> </ul> |
| Module-02  | Microbial Inoculants                        |                                                                                                                                                                                                                        |
| Module-03  | Production of Bio-fertilizers               |                                                                                                                                                                                                                        |
| Module-04  | Carrier Materials and Formulations          |                                                                                                                                                                                                                        |
| Module-05  | Quality Control of Bio-fertilizers          |                                                                                                                                                                                                                        |
| Module-06  | Application Techniques                      |                                                                                                                                                                                                                        |
| Module-07  | Impact on Soil Health                       |                                                                                                                                                                                                                        |
| Module-08  | Bio-fertilizers and Sustainable Agriculture |                                                                                                                                                                                                                        |
| Module-09  | Field Trials and Demonstrations             |                                                                                                                                                                                                                        |

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Module-10                                       | Economic Analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | • Presentation and report submission |
| <b>Suggested reading:</b>                       | <ol style="list-style-type: none"> <li>1. <b>"Biofertilizers in Agriculture and Forestry"</b> by N.S. Subba Rao</li> <li>2. <b>"Plant Growth-Promoting Rhizobacteria for Sustainable Agriculture"</b> by R. Zandi and H. M. Alikhani</li> <li>3. <b>"Biofertilizers and Organic Farming"</b> by Dr. S. Kannaiyan</li> <li>4. <b>"Microbial Biotechnology in Agriculture and Aquaculture"</b> by R.C. Ray and C.R. Ramachandran</li> <li>5. <b>"Rhizosphere Microbes and Plant Health"</b> by Naveen Kumar Arora</li> </ol>                                                                                 |                                      |
| <b>Suggested e-resources (Websites/e-books)</b> | <ol style="list-style-type: none"> <li>1. <a href="https://agrimoon.com/">https://agrimoon.com/</a></li> <li>2. <a href="https://www.researchgate.net/publication/385930280_Cassia_auriculata-Based_Silver_Nanoparticles_A_Novel_Approach_to_Combat_Bacterial_Infections">https://www.researchgate.net/publication/385930280_Cassia_auriculata-Based_Silver_Nanoparticles_A_Novel_Approach_to_Combat_Bacterial_Infections</a></li> <li>3. <a href="https://www.sciencedirect.com/science/article/pii/S2090123221001491">https://www.sciencedirect.com/science/article/pii/S2090123221001491</a></li> </ol> |                                      |

  
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**STUDY AND EVALUATION SCHEME**  
 (SUBJECT-WISE DISTRIBUTION OF MARKS AND CORRESPONDING CREDITS)

Programme: MSc\_Agriculture (Agronomy) Semester: 4<sup>th</sup>

Batch: 2019-2021

| Sub Code            | Sub Name                                     | L/T/P    | Int. Ass. Marks | Ext. Marks | Total Marks | Credit   | Credit 2  |
|---------------------|----------------------------------------------|----------|-----------------|------------|-------------|----------|-----------|
| AGRON-518[T]        | Principles and Practices of Water Management |          | 60              | 40         | 100         |          | 3         |
| AGRON-511[T]        | Cropping Systems                             |          | 60              | 40         | 100         |          | 2         |
| <b>AGRON-560[T]</b> | <b>Research</b>                              | <b> </b> | <b>0</b>        | <b> </b>   | <b>0</b>    | <b> </b> | <b>16</b> |

  
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### Details of UG Projects/Internship

**Name of the School:** School of Agriculture, ITM University, Gwalior.

**Name of the Course and Branch:** B.Sc. (Hons.) Agriculture (Batch 2017-2021)


**Session:** 2020-2021

**Total No. of Students enrolled:** 170

| S.No. | Roll No      | Student Name             | ELP                                                  |
|-------|--------------|--------------------------|------------------------------------------------------|
| 1.    | BAGN1AG17001 | Aakash Lilhore           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 421 |
| 2.    | BAGN1AG17002 | Aastha Gourishankar Tale | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 422 |
| 3.    | BAGN1AG17003 | Abhay Jat                | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 423 |
| 4.    | BAGN1AG17004 | Abhishek Rajput          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 424 |
| 5.    | BAGN1AG17005 | Aedal                    | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 425 |
| 6.    | BAGN1AG17006 | Ajay Rajput              | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 426 |
| 7.    | BAGN1AG17007 | Ajay Lodha               | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 427 |
| 8.    | BAGN1AG17009 | Ajay DeepSingh Kaurav    | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 428 |
| 9.    | BAGN1AG17010 | Akash Tyagi              | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 429 |
| 10.   | BAGN1AG17011 | Akash Dhakad             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 430 |
| 11.   | BAGN1AG17012 | Akhlak Ahmad             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 431 |
| 12.   | BAGN1AG17014 | Aman Kurmi               | Agron (E)421 ,Agron-(E) 422,GPB (E)-421, SS (E) 432  |
| 13.   | BAGN1AG17016 | Amit Kumar               | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 433 |
| 14.   | BAGN1AG17017 | Amit Parmar              | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 434 |
| 15.   | BAGN1AG17018 | Amit Ranjan              | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 435 |
| 16.   | BAGN1AG17019 | Amit Singh Rathore       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 436 |
| 17.   | BAGN1AG17020 | Anand Singh Chouhan      | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 437 |
| 18.   | BAGN1AG17021 | Anchal Sharma            | Agron (E)421 ,Agron-(E) 422,                         |

  
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|     |              |                      | GPB (E)-421, SS (E) 438                              |
| 19. | BAGN1AG17023 | AnilKumar Sharma     | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 439 |
| 20. | BAGN1AG17024 | AnilSingh Gurjar     | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 440 |
| 21. | BAGN1AG17025 | Anjali Kujur         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 441 |
| 22. | BAGN1AG17026 | Ankit Gupta          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 442 |
| 23. | BAGN1AG17027 | Ankit Sharma         | Agron (E)421 ,Agron-(E) 422,GPB (E)-421, SS (E) 443  |
| 24. | BAGN1AG17028 | Ankush Patidar       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 444 |
| 25. | BAGN1AG17031 | Anupam Tiwari        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 445 |
| 26. | BAGN1AG17033 | Anushank Dwivedi     | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 446 |
| 27. | BAGN1AG17035 | Ashish Panday        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 447 |
| 28. | BAGN1AG17037 | Ashwin Kumar Panse   | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 448 |
| 29. | BAGN1AG17039 | Atendra Singh Gurjar | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 449 |
| 30. | BAGN1AG17040 | Atul Patel           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 450 |
| 31. | BAGN1AG17041 | Bakeshwar Yadav      | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 451 |
| 32. | BAGN1AG17042 | Bharat Singh         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 452 |
| 33. | BAGN1AG17043 | Brajesh Prajapati    | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 453 |
| 34. | BAGN1AG17044 | Brijesh Singh Gurjar | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 454 |
| 35. | BAGN1AG17045 | Chandni Sharma       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 455 |
| 36. | BAGN1AG17046 | Chetan Karoda        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 456 |
| 37. | BAGN1AG17047 | Chitra Kashyap       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 457 |
| 38. | BAGN1AG17048 | Dasari Kranthi Kumar | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 458 |
| 39. | BAGN1AG17049 | Deepak Dhakad        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 459 |
| 40. | BAGN1AG17051 | Deepak Narwade       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 460 |
| 41. | BAGN1AG17052 | Deepak Patidar       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 461 |
| 42. | BAGN1AG17054 | Devendra Singh       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 462 |
| 43. | BAGN1AG17055 | Devesh Patel         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 463 |
| 44. | BAGN1AG17057 | Dharmveer Sharma     | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 464 |

  
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| 45. | BAGN1AG17059 | Divakar Singh                  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 465 |
| 46. | BAGN1AG17060 | Diya Ghosal                    | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 466 |
| 47. | BAGN1AG17062 | GauravSingh Chauhan            | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 467 |
| 48. | BAGN1AG17064 | GloriaPetrisha Das             | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 468 |
| 49. | BAGN1AG17065 | GogineniManeesha Chowdary      | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 469 |
| 50. | BAGN1AG17066 | Gongura Sunil                  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 470 |
| 51. | BAGN1AG17068 | Gyanesh Karode                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 471 |
| 52. | BAGN1AG17069 | Harsewak Kushwaha              | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 472 |
| 53. | BAGN1AG17071 | Harveer Dhakad                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 473 |
| 54. | BAGN1AG17072 | Hemant Gurjar                  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 474 |
| 55. | BAGN1AG17073 | Himanshu Goyal                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 475 |
| 56. | BAGN1AG17076 | Himanshu Verma                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 476 |
| 57. | BAGN1AG17077 | Hirdesh Kumar Verma            | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 477 |
| 58. | BAGN1AG17078 | Jaybhan Kushwah                | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 478 |
| 59. | BAGN1AG17080 | Kailash Bilwal                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 479 |
| 60. | BAGN1AG17082 | Kamlapat Prajapati             | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 480 |
| 61. | BAGN1AG17083 | Kandlapelly Pravalika          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 481 |
| 62. | BAGN1AG17084 | Kangari Rakesh Reddy           | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 482 |
| 63. | BAGN1AG17085 | Kanha                          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 483 |
| 64. | BAGN1AG17086 | Kartikay Garg                  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 484 |
| 65. | BAGN1AG17088 | Koushal Kishore Singh Tomar    | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 485 |
| 66. | BAGN1AG17089 | Kuldeep Sharma                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 486 |
| 67. | BAGN1AG17091 | Kunta RaviCharan Reddy         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 487 |
| 68. | BAGN1AG17092 | Kushal Singh Sisodiya          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 488 |
| 69. | BAGN1AG17093 | Lakhan Patidar                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 489 |
| 70. | BAGN1AG17094 | Lokeshraj                      | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 490 |
| 71. | BAGN1AG17096 | Malla ReddyGudem<br>VijayKumar | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 491 |
| 72. | BAGN1AG17097 | Malothu Naresh                 | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 492 |
| 73. | BAGN1AG17098 | ManishKumar Banik              | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 493 |
| 74. | BAGN1AG17099 | Manish Kumar Patel             | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 494 |
| 75. | BAGN1AG17100 | Manvendra Singh Kaurav         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 495 |




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| 76.  | BAGN1AG17101 | Md. Athar Imam          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 496 |
| 77.  | BAGN1AG17102 | Mohit Chourasiya        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 497 |
| 78.  | BAGN1AG17103 | Mohit Patidar           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 498 |
| 79.  | BAGN1AG17104 | Mohit Kumar             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 499 |
| 80.  | BAGN1AG17105 | Monu                    | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 500 |
| 81.  | BAGN1AG17106 | Nakul Yadav             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 501 |
| 82.  | BAGN1AG17108 | Narendra Narwariya      | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 502 |
| 83.  | BAGN1AG17109 | Naresh Baghel           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 503 |
| 84.  | BAGN1AG17111 | Nawraj Chaudhary        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 504 |
| 85.  | BAGN1AG17112 | Neeraj Dhakad           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 505 |
| 86.  | BAGN1AG17113 | Neha Rajpoot            | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 506 |
| 87.  | BAGN1AG17114 | Niharika Sahu           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 507 |
| 88.  | BAGN1AG17115 | Parth Sonwane           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 508 |
| 89.  | BAGN1AG17116 | Parvej Akhtar           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 509 |
| 90.  | BAGN1AG17117 | Parvendra Singh Rawat   | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 510 |
| 91.  | BAGN1AG17119 | Pawan Parasar           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 511 |
| 92.  | BAGN1AG17121 | Prakash Shahi           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 512 |
| 93.  | BAGN1AG17122 | Prakhar Kumar Sharma    | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 513 |
| 94.  | BAGN1AG17123 | Marathi Pramod Kumar    | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 514 |
| 95.  | BAGN1AG17124 | Pramod Patidar          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 515 |
| 96.  | BAGN1AG17125 | Pramod Patidar          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 516 |
| 97.  | BAGN1AG17126 | Pranav Prakash          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 517 |
| 98.  | BAGN1AG17128 | Prashant Arya           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 518 |
| 99.  | BAGN1AG17129 | Prashant Kumar          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 519 |
| 100. | BAGN1AG17130 | Prashant Mishra         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 520 |
| 101. | BAGN1AG17131 | Prateek Chhari          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 521 |
| 102. | BAGN1AG17132 | Prithwish Mandal        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 522 |
| 103. | BAGN1AG17133 | Pushpender Singh Rathor | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 523 |
| 104. | BAGN1AG17134 | Pushpendra Dhakad       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 524 |
| 105. | BAGN1AG17135 | Pushpendra Singh Rawat  | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 525 |
| 106. | BAGN1AG17136 | Radheshyam Yadav        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 526 |

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| 107. | BAGN1AG17137 | Raghuvir               | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 527 |
| 108. | BAGN1AG17138 | Raj Kumar              | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 528 |
| 109. | BAGN1AG17139 | Ramvinod Meena         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 529 |
| 110. | BAGN1AG17140 | Rangoli Dohre          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 530 |
| 111. | BAGN1AG17141 | Raushan Kumar          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 531 |
| 112. | BAGN1AG17142 | RaviSingh Gurjar       | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 532 |
| 113. | BAGN1AG17143 | RaviKant Tyagi         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 533 |
| 114. | BAGN1AG17144 | Rishabh Shrivastava    | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 534 |
| 115. | BAGN1AG17145 | Rithik Raj Bahroliya   | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 535 |
| 116. | BAGN1AG17147 | Sadik Khan             | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 536 |
| 117. | BAGN1AG17148 | Sahil Soni             | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 537 |
| 118. | BAGN1AG17149 | Sakshi Ojha            | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 538 |
| 119. | BAGN1AG17150 | Sanchay Agrawal        | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 539 |
| 120. | BAGN1AG17151 | Sandeep Thakur         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 540 |
| 121. | BAGN1AG17152 | Sandhya Kunwar         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 541 |
| 122. | BAGN1AG17153 | Sangita Rathor         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 542 |
| 123. | BAGN1AG17154 | SantoshKumar Chaudahry | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 543 |
| 124. | BAGN1AG17155 | Santosh Singh          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 544 |
| 125. | BAGN1AG17156 | Satendra Singh Gurjar  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 545 |
| 126. | BAGN1AG17157 | Satish Dhakad          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 546 |
| 127. | BAGN1AG17158 | Satyam Soni            | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 547 |
| 128. | BAGN1AG17159 | Satyendra Lodha        | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 548 |
| 129. | BAGN1AG17160 | Saurabh Sanoriya       | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 549 |
| 130. | BAGN1AG17161 | Saurabh Sharma         | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 550 |
| 131. | BAGN1AG17162 | SaurabhSingh Sisaudia  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 551 |
| 132. | BAGN1AG17163 | Saurav Chaturvedi      | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 552 |
| 133. | BAGN1AG17165 | Savan Patel            | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 553 |
| 134. | BAGN1AG17166 | Shachi Sengar          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 554 |
| 135. | BAGN1AG17168 | Shashank Dwivedi       | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 555 |
| 136. | BAGN1AG17170 | Shivam Singh           | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 556 |
| 137. | BAGN1AG17171 | Shivam Tiwari          | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 557 |


  
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| 138. | BAGN1AG17172 | Shivani Mahapatra        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 558 |
| 139. | BAGN1AG17174 | Shreshthita Shukla       | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 559 |
| 140. | BAGN1AG17175 | Shubham Patidar          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 560 |
| 141. | BAGN1AG17176 | Shubham Sharma           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 561 |
| 142. | BAGN1AG17177 | Snehal Sharma            | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 562 |
| 143. | BAGN1AG17178 | SomPrakash Mishra        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 563 |
| 144. | BAGN1AG17179 | Sonu Kushwah             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 564 |
| 145. | BAGN1AG17180 | Sudhanshu Mandloi        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 565 |
| 146. | BAGN1AG17181 | Suraj Pal                | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 566 |
| 147. | BAGN1AG17182 | SurajbhanSingh Kushwah   | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 567 |
| 148. | BAGN1AG17183 | Surendra Patidar         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 568 |
| 149. | BAGN1AG17184 | Sutendra Singh           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 569 |
| 150. | BAGN1AG17185 | Upendra Sharma           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 570 |
| 151. | BAGN1AG17186 | Vadapalli Nikhil         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 571 |
| 152. | BAGN1AG17187 | VadlaNaveen Kumar        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 572 |
| 153. | BAGN1AG17188 | Vaibhav Singh            | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 573 |
| 154. | BAGN1AG17189 | Vanjari Nithish          | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 574 |
| 155. | BAGN1AG17190 | Vikash Singhal           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 575 |
| 156. | BAGN1AG17191 | Vikrant Jat              | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 576 |
| 157. | BAGN1AG17192 | Vinod Rai                | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 577 |
| 158. | BAGN1AG17193 | Vishal Patidar           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 578 |
| 159. | BAGN1AG17194 | Vishvnath Singh Rajput   | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 579 |
| 160. | BAGN1AG17196 | Yashdeep Singh Chouhan   | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 580 |
| 161. | BAGN1AG17197 | Yendra Patel             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 581 |
| 162. | BAGN1AG17198 | Abhinav Kejariwal        | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |
| 163. | BAGN1AG17199 | Anamika Sharma           | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |
| 164. | BAGN1AG17200 | Moses John Jayanth Kumar | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |
| 165. | BAGN1AG17201 | Panugulla Mahesh         | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |
| 166. | BAGN1AG17204 | Aniruddha Singh kaurav   | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |
| 167. | BAGN1AG17206 | Nazia Parween            | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |
| 168. | BAGN1AG17207 | Sudhir Kumar             | Agron (E)421 ,Agron-(E) 422, GPB (E)-421, SS (E) 582 |

  
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|      |              |               |                                                         |
|------|--------------|---------------|---------------------------------------------------------|
| 169. | BAGN1AG17208 | Ragini Gautam | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 582 |
| 170. | BAGN1AG17209 | Ayush Sharma  | Agron (E)421 ,Agron-(E) 422,<br>GPB (E)-421, SS (E) 582 |

  
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HOD  
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**Sample Project report of ELPs programmes**

**ITM**  
UNIVERSITY  
"CELEBRATING DREAMS"

**Report  
of  
Experiential Learning Program  
on**

**AGRON(E)-421 Crop Production (Integrated Farming System)  
AGRON(E)-422 Crop Production; Water Management  
GPB(E)-421 Genetics and Plant Breeding  
SS(E)-421 Bio-Fertilizer**

**Submitted by**  
**Shachi Sengar**  
**(BAGNIAG17166)**

**ELP Co-ordinator**  
**Dr. Lakshman Singh**

**School of Agriculture, ITM University, Gwalior**  
**(2021-2022)**

*[Handwritten signatures and initials]*

*[Handwritten mark: A++]*

*[Handwritten signature]*  
**Dr. Omveer Singh**  
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**ITM University**  
**Gwalior (M.P.)**



**Report  
of  
Experiential Learning Program  
on**


**AGRON(E)-421 Crop Production (Integrated Farming System)**

**AGRON(E)-422 Crop Production; Water Management**

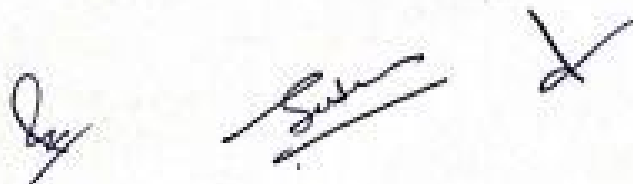
**GPB(E)-421 Genetics and Plant Breeding**


**SS(E)-421 Bio-Fertilizer**

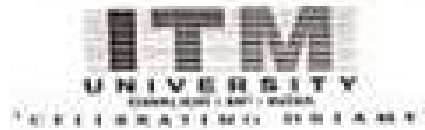
**Submitted by  
Malothu Naresh  
(BAGNIAG17097)**

  
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**School of Agriculture, ITM University, Gwalior  
(2021-2022)**




  
**Dr. Omveer Singh  
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**Report**  
**of**  
**Experiential Learning Program**  
**on**  
**AGRON(E)-421 Crop Production (Integrated Farming System)**  
**AGRON(E)-422 Crop Production; Water Management**  
**GPB(E)-421 Genetics and Plant Breeding**  
**SS(E)-421 Bio-Fertilizer**

**Submitted by**  
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**(2021-2022)**



  
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**List of M.Sc.(Agriculture) Agronomy Students  
Batch 2019-2021**

| S. No. | Roll No.     | Name                  |
|--------|--------------|-----------------------|
| 1.     | MAGN1AG19003 | Naval Kishore         |
| 2.     | MAGN1AG19006 | Vishakha Jaiswal      |
| 3.     | MAGN1AG19007 | Priyansh Kumar Sharma |
| 4.     | MAGN1AG19008 | Vishal Gupta          |
| 5.     | MAGN1AG19009 | Rahul Kumar Solanki   |
| 6.     | MAGN1AG19012 | Munesh Singh          |

  
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Head of Department  
Agronomy



**Sample Project report of M.Sc. (Agriculture) Agronomy**

**EFFECT OF INTEGRATED NUTRIENT MANAGEMENT (INM) ON  
GROWTH, YIELD AND QUALITY OF MUSTARD (*Brassica juncea* L.)**



**THESIS**

**SUBMITTED FOR THE PARTIAL FULFILMENT FOR THE AWARD OF  
THE DEGREE OF  
MASTER OF SCIENCE (AGRICULTURE)  
IN  
AGRONOMY**

**SUBMITTED BY  
MUNNESH SINGH  
(ROLL.NO.MAGNIAG19012)**

**UNDER THE GUIDANCE OF  
PROF. S.S. TOMAR**

**DEPARTMENT OF AGRONOMY  
SCHOOL OF AGRICULTURE,  
ITM UNIVERSITY,  
GWALIOR- 474001 (MP)  
INDIA  
2022**

  
**Dr. Omveer Singh  
REGISTRAR  
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SCHOOL OF AGRICULTURE  
ITM UNIVERSITY, GWALIOR, MADHYA PRADESH



**CERTIFICATE OF EVALUATION COMMITTEE**

This is to certify that the work entitled "Effect of integrated nutrient management (INM) on growth, yield and quality of Mustard (*Brassica juncea* L.)" has been declared and submitted by Mr. Munnesh Singh (Roll. No.MAGN1AG19012) in partial fulfillment of the requirement for the award of Degree of Master of Science in Agriculture, Department of Agronomy, in the School of Agriculture, ITM University Gwalior, Madhya Pradesh. The thesis has been examined by the Evaluation Committee and found acceptable.

| Name & Designation                                                                            | Evaluation                         | Signature |
|-----------------------------------------------------------------------------------------------|------------------------------------|-----------|
| 1. Prof. (Dr). S. S. Tomar<br>Professor<br>School of Agriculture<br>Major Advisor & Chairman  | ✓<br>Satisfactory/Not satisfactory |           |
| 2. Prof. (Dr). J.D Sharma<br>HOD (Agronomy)<br>SoAg<br>Member from Major                      | ✓<br>Satisfactory/Not satisfactory |           |
| 3. Dr. Sagolshem Kalidas<br>Assistant Professor<br>School of Agriculture<br>Member from Minor | ✓<br>Satisfactory/Not satisfactory |           |
| 4. Dr. D. B. Tyagi<br>Associate Professor<br>School of Agriculture<br>Dean Nominee            | ✓<br>Satisfactory/Not satisfactory |           |

Place: ITM University, Gwalior

Date: 29/08/2022

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Dean  
School of Agriculture  
School of Agriculture  
ITM University  
Gwalior (M.P.)

**“EFFECT OF VARIOUS LEVELS OF SULPHUR AND  
VERMICOMPOST ON THE GROWTH, YIELD AND QUALITY  
OF INDIAN MUSTARD (*Brassica juncea* L. Czern & Coss)”**

**THESIS**



**SUBMITTED FOR THE PARTIAL FULLFILMENT FOR THE  
AWARD OF THE DEGREE**

**OF**

**MASTER OF SCIENCE (AGRICULTURE)**

**IN**

**AGRONOMY**

**Submitted by**

**RAHUL KUMAR SOLANKI**  
**(Roll No.MAGN1AG19009)**

**Under the guidance of**

**DR. RAGHVENDRA SINGH**  
**Assistant Professor**

**DEPARTMENT OF AGRONOMY**  
**SCHOOL OF AGRICULTURE,**  
**ITM UNIVERSITY, GWALIOR-474001 (M.P) 2022**





  
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**SCHOOL OF AGRICULTURE  
ITM UNIVERSITY, GWALIOR, MADHYA PRADESH**



**CERTIFICATE OF EVALUATION COMMITTEE**

This is to certify that the work entitled “Effect of various levels of sulphur and vermicompost on the growth, yield and quality of Indian mustard (*Brassica juncea L. Czern & Coss*)” has been declared and submitted by **Mr. Rahul Kumar Solanki (Roll. No. MAGN1AG19009)** in partial fulfilment of the requirement for the award of Degree of **Master of Science in Agriculture, Department of Agronomy**, in the School of Agriculture, ITM University Gwalior, Madhya Pradesh. The thesis has been examined by the Evaluation Committee and found acceptable.

| Name & Designation                                                                                                    | Evaluation                         | Signature                                                                            |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------|
| 1. <b>Dr. Raghvendra Singh</b><br>Assistant Professor<br>School of Agriculture<br><b>Major Advisor &amp; Chairman</b> | Satisfactory/Not satisfactory      |   |
| 2. <b>Dr. S. S. Tomar</b><br>Professor<br>School of Agriculture<br><b>Member from Major</b>                           | ✓<br>Satisfactory/Not satisfactory |  |
| 3. <b>Dr. Sagolshem Kalidas Singh</b><br>Assistant Professor<br>School of Agriculture<br><b>Member from Minor</b>     | Satisfactory/Not satisfactory      |  |
| 4. <b>Dr. Raj Chimanbhai Popat</b><br>Assistant Professor<br>School of Agriculture<br><b>Dean Nominee</b>             | Satisfactory/Not satisfactory      |  |

Place: Gwalior

Date: 21/07/2020

  
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**DEAN**  
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