

Master of Science Program in Agricultural Biotechnology

Research Focus

- Advanced Gene Technology
- DNA Marker Technology
- Recombinant DNA Technology
- Industrial Fermentation Process
- Metabolic Engineering

Structure of the Program

1. Credit Requirements *

| Requirements | Option 1.1 | Option 1.2 |
|-----------------------------|------------|------------|
| Coursework | - | 24 |
| - Core Courses | - | 9 |
| - Electives | - | 15 |
| Required Non-credit Courses | 5 | 5 |
| Thesis | 36 | 12 |
| Total | 36 | 36 |

* Minimum credits required

2. Core Courses

| Requirements | Option 1.1 | | Option 1.2 | |
|--------------------------|------------|-----|------------|----------|
| | Course No. | Cr. | Course No. | Cr. |
| Molecular Genetics | - | - | 110531 | 3 |
| Aspects of Biotechnology | - | - | 110551 | 3 |
| Advanced Gene Technology | - | - | 110541 | 3 |
| Total | - | - | 3 | 9 |

3. Electives

| Requirements | Option 1.1 | | Option 1.2 | |
|---|------------|-----|------------|-----|
| | Course No. | Cr. | Course No. | Cr. |
| Selected Topics in Agricultural Biotechnology | - | - | 110503 | 3 |
| Cell Structure and Function | - | - | 110521 | 3 |
| Molecular Systematics and Evolution | - | - | 110532 | 3 |
| Applications of Molecular Markers | - | - | 110542 | 3 |
| Enzyme Technology | - | - | 110561 | 3 |
| Applications of Polysaccharides in Industry | - | - | 110562 | 3 |
| Bioprocess Engineering | - | - | 110571 | 3 |
| Bioseparation Process | - | - | 110572 | 3 |
| Industrial Fermentation Process | - | - | 110573 | 3 |
| Biotechnology Quality and Safety Management | - | - | 110581 | 3 |
| Total | - | - | ≥5 | ≥15 |

4. Required Non-credit Courses

| Requirements | Option 1.1 | | Option 1.2 | |
|--|------------|----------|------------|----------|
| | Course No. | Cr. | Course No. | Cr. |
| Agricultural Biotechnology Seminar 1 | 110501 | 1 | 110501 | 1 |
| Agricultural Biotechnology Seminar 2 | 110502 | 1 | 110502 | 1 |
| Research Methodology in Science and Technology | 110511 | 3 | 110511 | 3 |
| Total | 3 | 5 | 3 | 5 |

5. Thesis Credit Requirements

| Requirements | Option 1.1 | | Option 1.2 | |
|----------------------|------------|-----------|------------|-----------|
| | Course No. | Cr. | Course No. | Cr. |
| Thesis 1, Option 1.1 | 110591 | 9 | - | - |
| Thesis 2, Option 1.1 | 110592 | 9 | - | - |
| Thesis 3, Option 1.1 | 110593 | 9 | - | - |
| Thesis 4, Option 1.1 | 110594 | 9 | - | - |
| Thesis 1, Option 1.2 | - | - | 110595 | 3 |
| Thesis 2, Option 1.2 | - | - | 110596 | 3 |
| Thesis 3, Option 1.2 | - | - | 110597 | 6 |
| Total | 4 | 36 | 3 | 12 |