

Master of Science Program in Biomedical Sciences

Research Focus

- Infectious Diseases
- Molecular Immunology
- Cellular and Molecular Hematology
- Cell and Molecular Biology of Cancer
- Radiobiology
- Regenerative Medicine (Stem Cell Research and Tissue Engineering)
- Biomedical Engineering and Medical Innovation
- Biotechnology
- Cardiovascular Sciences

Structure of the Program

1. Credit Requirements*

| Requirements | Option 1.1 | Option 1.2 |
|----------------------------|------------|------------|
| Coursework | - | 24 |
| - Core Course | - | 15 |
| - Electives | - | 9 |
| Required Non-credit Course | 3 | 3 |
| 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. |
| Cell Biology and Cell Science | - | - | 655501 | 3 |
| Research Methodology in Health Sciences | - | - | 655503 | 3 |
| Biostatistics in Biomedical Sciences | - | - | 655504 | 3 |
| Research Techniques in Cell Biology | - | - | 655514 | 3 |
| Research Techniques in Molecular Biology | - | - | 655515 | 3 |
| Total | - | - | 5 | 15 |

3. Electives

| Requirements | Option 1.1 | | Option 1.2 | |
|--|------------|-----|------------|-----------|
| | Course No. | Cr. | Course No. | Cr. |
| Epidemiology | - | - | 655523 | 2 |
| Determination of Antimicrobial Resistance | - | - | 655524 | 2 |
| Medical Bioinformatics | - | - | 655525 | 3 |
| Advanced Immunological Techniques | - | - | 655526 | 2 |
| Review of Current Topics in Biomedical Sciences | - | - | 655529 | 1 |
| Biomedical Sciences Laboratory Technique | - | - | 655530 | 2 |
| Advance Biomedical Sciences Laboratory | - | - | 655531 | 2 |
| Research Techniques in Cardiovascular System | - | - | 655532 | 3 |
| Cellular and Molecular Physiology of Cardiovascular System | - | - | 655533 | 3 |
| Advanced Radiation Biology | - | - | 655534 | 3 |
| Molecular and Cellular Biology of Cancer | - | - | 655535 | 3 |
| Research Techniques in Radiation Biology | - | - | 655536 | 2 |
| Radiation Dosimetry | - | - | 655537 | 2 |
| Advanced Radiation Protection | - | - | 655538 | 2 |
| Digital Image Processing | - | - | 655539 | 2 |
| Application of Image Processing Techniques | - | - | 655540 | 2 |
| Advanced Research Techniques in Musculoskeletal System | - | - | 655541 | 3 |
| Advanced Movement Sciences of Upper Extremities | - | - | 655542 | 3 |
| Advanced Movement Sciences of Lower Extremities | - | - | 655543 | 3 |
| Total | - | - | 19 | ≥9 |

4. Required Non-credit Courses

| Requirements | Option 1.1 | | Option 1.2 | |
|---------------------------------------|------------|----------|------------|----------|
| | Course No. | Cr. | Course No. | Cr. |
| Ethics in Biomedical Science Research | 655502 | 1 | 655502 | 1 |
| Seminar 1 | 655570 | 1 | 655570 | 1 |
| Seminar 2 | 655571 | 1 | 655571 | 1 |
| Total | 3 | 3 | 3 | 3 |

5. Thesis Credit Requirements

| Requirements | Option 1.1 | | Option 1.2 | |
|----------------------|------------|-----------|------------|-----------|
| | Course No. | Cr. | Course No. | Cr. |
| Thesis 1, Option 1.1 | 655590 | 9 | - | - |
| Thesis 2, Option 1.1 | 655591 | 9 | - | - |
| Thesis 3, Option 1.1 | 655592 | 9 | - | - |
| Thesis 4, Option 1.1 | 655593 | 9 | - | - |
| Thesis 1, Option 1.2 | - | - | 655594 | 3 |
| Thesis 2, Option 1.2 | - | - | 655595 | 6 |
| Thesis 3, Option 1.2 | - | - | 655596 | 3 |
| Total | 3 | 36 | 3 | 12 |