

**BSc in Molecular Biology and Bio-Entrepreneurship**  
**Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB)**

| Course Code                 | Course name   | Credit Value |
|-----------------------------|---|--------------|
| <b>Level 1 - Semester 1</b> |   |              |
| MBB 1001                    | Chemistry for Molecular Biology and Biotechnology     | 3            |
| MBB 1002                    | Molecular Biology-I                                   | 2            |
| MBB 1003                    | Fundamentals in Microbiology                          | 2            |
| MBB 1004                    | Animal Cell Biology                                   | 3            |
| MBB 1005                    | Fundamentals in Biochemistry                          | 2            |
| MBB 1006                    | Introduction to Information Technology                | 2            |
| MBB 1007                    | English for Business communication and Writing skills | 0            |

|                             |  |   |
|-----------------------------|--|---|
| <b>Level 1 - Semester 2</b> |  |   |
| MBB 1008                    | Plant Cell Biology                                 | 2 |
| MBB 1009                    | Genetics-I   | 2 |
| MBB 1010                    | Basics in Entrepreneurship and Business Management | 2 |
| MBB 1011                    | Cellular Metabolism                                | 3 |
| MBB 1012                    | Cellular Communications                            | 2 |
| MBB 1013                    | Basic Statistics                                   | 2 |
| MBB 1014                    | Molecular Biology-II                               | 3 |

|                             |  |   |
|-----------------------------|--|---|
| <b>Level 2 - Semester 3</b> |  |   |
| MBB 2001                    | Instrumental Techniques for Molecular Biology and Biotechnology -I | 2 |
| MBB 2002                    | Genetics-II  | 3 |
| MBB 2003                    | Fundamentals in Immunology   | 3 |
| MBB 2004                    | Business Sustainability  | 2 |
| MBB 2005                    | Applications in Agricultural Biotechnology                         | 3 |
| MBB 2006                    | Techniques in Cell Culture   | 2 |
| MBB 2007                    | English for Scientific communication and Writing skills            | 0 |

|                             |   |   |
|-----------------------------|---|---|
| <b>Level 2 - Semester 4</b> |   |   |
| MBB 2008                    | Instrumental Techniques for Molecular Biology and Biotechnology -II | 2 |
| MBB 2009                    | Bioinformatics -I   | 2 |
| MBB 2010                    | Molecular Biological Techniques                                     | 2 |
| MBB 2011                    | Applications in Industrial Biotechnology                            | 2 |
| MBB 2012                    | Introduction to Laboratory Management & Quality Assurance           | 2 |
| MBB 2013                    | Bioethics and intellectual property rights                          | 2 |
| MBB 2014                    | Applications in Medical Biotechnology                               | 3 |

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| <b>Level 3 - Semester 5</b> |   |          |
|-----------------------------|---|----------|
| MBB 3001                    | Specialized Applications in Molecular Biology | <b>2</b> |
| MBB 3002                    | Applications in Marine Biotechnology          | <b>3</b> |
| MBB 3003                    | Fundamentals in Molecular Medicine            | <b>2</b> |
| MBB 3004                    | Immunological Techniques for Biotechnology    | <b>2</b> |
| MBB 3005                    | Bioinformatics -II                            | <b>2</b> |
| MBB 3006                    | NanoBiotechnology                             | <b>2</b> |
| MBB 3007                    | Clinical Chemistry / Laboratory Medicine      | <b>2</b> |

| <b>Level 3 - Semester 6</b> |   |          |
|-----------------------------|---|----------|
| MBB 3008                    | Molecular, Cytogenetic and Immunological Diagnostics Techniques | <b>3</b> |
| MBB 3009                    | Biotech Entrepreneurship - I (In-plant training)                | <b>3</b> |
| MBB 3010                    | Biotech Entrepreneurship - II (Work-oriented group project)     | <b>4</b> |
| MBB 3011                    | Biotech Entrepreneurship - III (Business startup)               | <b>5</b> |