



**SCHOOL OF LIFE SCIENCE AND BIOTECHNOLOGY**

**Department of Biological Sciences**

**M.Sc. Microbiology**

Course Grid -

**ADAMAS UNIVERSITY**  
**DEPARTMENT OF MICROBIOLOGY**

**M.Sc. Microbiology Semester - I**

Type of the Course	Course Code	Course Name	Contact Hours Per Week	L	T	P	Credit
CORE (Theory)	MIB21501	Biomolecules and Bimolecular Interaction	3	3	0	0	3
CORE (Theory)	MIB21503	Biophysical Chemistry and Bioanalytical Techniques	3	3	0	0	3
CORE (Theory)	MIB21542	Bacteriology and Virology	3	3	0	0	3
CORE (Theory)	MIB21543	Microbial Genetics and Cell biology		3	0	0	3
CORE (Theory)	MIB21546	Ecology and Evolution	4	0	0	4	3
CORE (Practical)	MIB22544	Biomolecules, Biophysical Chemistry and Bioanalytical Techniques Lab	4	0	0	4	2
CORE (Practical)	MIB22545	Bacteriology, virology and Microbial Genetics Lab	4	0	0	4	2
<b>Total</b>			<b>28</b>	<b>12</b>	<b>0</b>	<b>16</b>	<b>19</b>

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**M.Sc. Microbiology Semester - II**

Type of the Course	Course Code	Course Name	Contact Hours Per Week	L	T	P	Credit
CORE (Theory)	MIB21509	Molecular Biology	3	3	0	0	3

<b>CORE (Theory)</b>	<b>MIB21511</b>	<b>Recombinant DNA Technology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>CORE (Theory)</b>	<b>MIB21513</b>	<b>Environmental Microbiology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>CORE (Theory)</b>	<b>MIB21515</b>	<b>Bioinformatics and Computational Biology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>CORE (Practical)</b>	<b>MIB22547</b>	<b>Molecular Biology and Recombinant DNA technology Lab</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>CORE (Practical)</b>	<b>MIB22514</b>	<b>Environmental Microbiology Lab</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>CORE (Practical)</b>	<b>MIB22516</b>	<b>Bioinformatics and Computational Biology Lab</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>CORE (Theory) Discipline Specific Elective-I</b>	<b>MIB21517 / MIB21518 / MIB21519 / MIB21520 / MIB21521</b>	<b>Any One of the following*:  Enzyme and Enzyme Technology / Food and Dairy: Safety and Quality Control / Drug Design and Development / Host-Pathogen Interaction / Recent Advances in Vaccine Technology.</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Total</b>			<b>27</b>	<b>15</b>	<b>0</b>	<b>12</b>	<b>21</b>

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**M.Sc. Microbiology Semester - III**

<b>Type of the Course</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Contact Hours Per Week</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
<b>CORE (Theory)</b>	<b>MIB21522</b>	<b>Immunology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>CORE (Theory)</b>	<b>MIB21524</b>	<b>Medical Microbiology and Molecular Diagnostics</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

<b>CORE (Theory)</b>	<b>MIB21526</b>	<b>Bioprocess Technology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>CORE (Theory)</b>	<b>MIB21528</b>	<b>Microbial Metabolism</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>CORE (Practical)</b>	<b>MIB22548</b>	<b>Immunology and Medical Microbiology Lab</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>CORE (Practical)</b>	<b>MIB22527</b>	<b>Bioprocess Technology Lab</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>CORE (Practical)</b>	<b>MIB22529</b>	<b>Microbial Metabolism Lab</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>CORE (Theory) Discipline Specific Elective-II</b>	<b>MIB21530/ MIB21531/ MIB21532/ MIB21533/ MIB21534</b>	<b>Any One of the following*: Microbial Genomics and Proteomics /Research Methodology, iostatistics and GLP /Pharmaceutical Microbiology / Eukaryotic Microbiology /Nanobiotechnology</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>FOUNDATION</b>	<b>MIB24535</b>	<b>Industry Internship</b>					<b>2</b>
<b>Total</b>			<b>27</b>	<b>15</b>	<b>0</b>	<b>12</b>	<b>23</b>

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**M.Sc. Microbiology Semester - IV**

<b>Type of the Paper</b>	<b>Paper Code</b>	<b>Theory / Practical</b>	<b>Contact Hours Per Week</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
<b>CORE (Theory)</b>	<b>MIB21536</b>	<b>Bioethics and Intellectual Property Rights</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>3</b>

<b>CORE</b>	<b>MIB25540</b>	<b>Comprehensive Viva</b>				<b>2</b>
<b>CORE</b>	<b>MIB25541</b>	<b>Dissertation</b>	<b>6</b>		<b>6</b>	<b>12</b>
<b>Total</b>			<b>9</b>	<b>3</b>	<b>2</b>	<b>6</b>
					<b>6</b>	<b>17</b>

\* Offering of DSE subjects will vary from year to year, subject to the availability of faculty

**Total credit distribution semester-wise:**

<b>Semester</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>Total</b>
<b>Credits</b>	19	21	23	17	80