

# Scheme of Study

## 1st Semester

Course Code	Course Title	Cr. Hrs.
ENG-301	English 1 (Functional English)	3(3-0)
PST-301	Pakistan Studies	3(3-0)
MATH-301	Mathematics I	3(3-0)
BIO-301	Cell Biology	3(3-0)
CHEM-301	Organic Chemistry	3(3-0)
MIC-301	Microbiology-1	3(3-0)
Total Cr. Hrs.		18

## 2nd Semester

Course Code	Course Title	Cr. Hrs.
ENG-302	English-II (Technical Writing and Presentation Skills)	3(3-0)
IST-302/ETH-302	Islamic Studies/ Ethics	3(3-0)
MATH-302	Calculus-I	3(3-0)
BCH-302	Biochemistry-I	3(3-0)
MIC-302	Microbiology-II	3(3-0)
MIC-304	Biosafety and Risk Management	3(2-1)
Total Cr. Hrs.		18

## 3rd Semester

Course Code	Course Title	Cr. Hrs.
CSC-401	Introduction to ICT (Information & Computer Technology)	3(3-0)
BIO-401	Biotechnology	3(3-0)
BCH-401	Biochemistry-II	3(3-0)
ZOO-401	Genetics	3(3-0)
MIC-401	General Physiology	3(3-0)
BOT-401	Molecular Biology	3(2-1)
Total Cr. Hrs.		18

## 4th Semester

Course Code	Course Title	Cr. Hrs.
MIC-402	Microbial Diversity	3(2-1)
MIC-404	Introduction to Virology	3(2-1)
MIC-406	Introduction to Immunology	3(2-1)
MIC-408	Introduction to Mycology	3(2-1)
BIO-402	Introduction to Bioinformatics	3(3-0)
MIC-410	Ecology and Ecosystem	3(3-0)
Total Cr. Hrs.		18

## 5th Semester

Course Code	Course Title	Cr. Hrs.
MIC-501	Medical Microbiology and Infectious diseases	3(2-1)
MIC-503	Environmental Microbiology	3(2-1)
MIC-505	Microbial Taxonomy	3(2-1)
MIC-507	Applied Microbiology	3(2-1)
STAT-501	Biostatistics	3(2-1)
MIC-509	Lab 1	3(0-3)
Total Cr. Hrs.		18

## 6th Semester

Course Code	Course Title	Cr. Hrs.
MIC-502	Epidemiology, Public health and bioethics	3(2-1)
MIC-504	Lab 2	3(0-3)
	Institutional Elective I	3(2-1)
MIC-506	Genetic Engineering	3(2-1)
MIC-508	Clinical Bacteriology	3(2-1)
MIC-510	Research Methodology	3(3-0)
Total Cr. Hrs.		18

# Scheme of Study

## 7th Semester

Course Code	Course Title	Cr. Hrs.
	Institutional Elective II	3(2-1)
MIC-601	Enzymology	3(2-1)
MIC-603	Parasitology	3(2-1)
MIC-605	Food Microbiology	3(2-1)
MIC-607	Internship/Research Project	3(0-3)
MIC-609	Microbial Plant Diseases	3(3-0)
Total Cr. Hrs.		18

## 8th Semester

Course Code	Course Title	Cr. Hrs.
MIC-602	Internship	3(0-3)
	Institutional Elective III	3(2-1)
	Institutional Elective IV	3(2-1)
Total Cr. Hrs.		9
Grand Total Cr, Hrs.		135