

1 <sup>st</sup> Semester (Common year)				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect.- Exre.-Pract.)
MATH 150	Differential Calculus (E)	-	-	3 (2+1+0)
CT 101	IT Skills	-	-	3(3+0+0)
ENG 140	English Language (1) (E)	-	-	6 (6+0+0)
140 ARB	Writing skills	-	-	2(2+0+0)
ENT 101	Entrepreneurship	-	-	1 (1+0+0)
<b>Total of Credit Hours</b>				<b>15</b>

2 <sup>nd</sup> Semester (Common year)				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect.- Exre.-Pract.)
CHEM 101	General Chemistry	-	-	4 (3+0+1)
MC 140	Communication Skills	-	-	3 (3+0+0)
150 STAT	Introduction to statistics.(E)	-	-	3(2+1+0)
CHS 150	Health and Fitness (2)	-	-	1 (1+0+0)
ENG 150	English Language (2) (E)	ENG 140	-	6 (6+0+0)
<b>Total of Credit Hours</b>				<b>17</b>

3 <sup>rd</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. -Pract.)
BIOCH 101	General Biochemistry	-	-	4 (3+0+2)
MBIO 140	General Microbiology	-	-	3 (2+0+2)
MBIO240	Laboratory Skills	-	140 MBIO	2 (0+0+4)
BIOCH 220	Blood Biochemistry	-	-	3 (2+0+2)
Free Course		-	-	2
Elective course from University requirement		-	-	2 (2+0+0)
<b>Total of Credit Hours</b>				<b>16</b>

4 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. -Pract.)
MBIO 250	General Virology	140 MBIO	-	3 (2+0+2)
MBIO 260	General Bacteriology		-	3 (2+0+2)
MBIO 270	General Mycology		-	3 (2+0+2)
MBIO 222	Microbial fine structure		-	2(1+0+2)
MBIO 280	Biology of Microalgae		-	2 (1+0+2)
Elective course from University requirement			-	-
<b>Total of Credit Hours</b>				<b>15</b>

5 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. -Pract.)
MBIO 340	Microbial Ecology & Pollution	140 MBIO	-	3 (2+0+2)
MBIO 320	Microbial Diagnostic	140 MBIO	-	2 (1+0+2)
FSN 321	Food Microbiology	MBIO (260, 270)	-	3 (2+0+2)
MBIO 331	Microbial Physiology	MBIO 140	-	3 (2+0+2)
Elective course from Outside Specialization		Variable	-	3
Elective course from University requirement		-	-	2 (2+0+0)
<b>Total of Credit Hours</b>				<b>16</b>

6 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. -Pract.)
MBIO 465	Industrial microbiology	FSN 321, MBIO 280	-	2 (1+0+2)
MBIO 334	Biochemical Instrumentation Techniques	MBIO 140	-	2 (1+0+2)
MBIO 344	Sanitation and Water Microbiology	MBIO 340	-	2 (1+0+2)
MBIO 351	Microbial Genetics	MBIO 140	-	3 (2+0+2)
MBIO 463	Antibiotics	140 MBIO, 260 MBIO	-	3(2+0+2)
Elective course from Outside Specialization		Variable	-	3
Elective course from University requirement		-	-	2 (2+0+0)
<b>Total of Credit Hours</b>				<b>17</b>

7 <sup>th</sup> semester				
Course code	Course title	Pre-Req.	Co-Req.	Credits (Lect. - Exer. - Pract.)
MBIO 492	Training in the techniques of food microbes, environmental and human health	-	-	6 (0+0+12)
<b>Total Units</b>				<b>6</b>

8 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. -Pract.)
MBIO 450	Medical Virology	MBIO 250	-	3 (2+0+2)
MBIO 451	Immunology	MBIO 351	-	3 (2+0+2)
MBIO 460	Medical Bacteriology	MBIO 260	-	3 (2+0+2)
MBIO 470	Medical Mycology	MBIO 270	-	3 (2+0+2)
MBIO 490	Scientific Communication	After 90 Credits		1 (1+0+0)
MBIO 499	Research Project	After 90 Credits		3 (0+0+3)
Total of Credit Hours				16

(Lect - Exer - Pract.) = (Lecture - Exercise - Practical)

9 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. -Pract.)
MBIO 493	Training in medical microbiology laboratories	After 90 Credits	None	6 (0+0+12)
Six Elective courses from Specialization		-	-	12
Total of Credit Hours				18

### List of the Elective Courses of the University Requirements

**(Student elects 8 credit hours)**

Course Code	Course Title	Pre-requisite	Credits (Lect. - Exer. - Pract.)
IC 100	Studies in the Biography of the Prophet	-	2 (2+0+0)
IC 101	Introduction of Islamic Culture	-	2 (2+0+0)
IC 102	Islam and Building up the Society	-	2 (2+0+0)
IC 103	Economic System in Islam	-	2 (2+0+0)
IC 104	Political system in Islam	-	2 (2+0+0)
IC 105	Human Rights	-	2 (2+0+0)
IC 106	Islamic Jurisprudence	-	2 (2+0+0)
IC 107	Ethics of Occupation	-	2 (2+0+0)
IC 108	Contemporary Issues	-	2 (2+0+0)
IC 109	Woman and Her Developmental Role	-	2 (2+0+0)

### List of the Elective Courses

<b>Elective courses from OUTSIDE the Specialization (Student elects 6 credit hours)</b>			
Course Code	Course Title	Pre-requisite	Credits (Lect - Exer- Pract)
BOT 102	Botany	-	3 (2+0+2)
ZOOL 103	Principal of general zoology	-	3 (2+0+2)
ZOOL 212	Parasitology	MBIO 140	3 (2+0+2)
PHYS 209	Biophysics	-	3 (2+0+2)
CHEM 253	Fundamental of Analytical Chemistry	CHEM 101	2 (1+0+2)
ZOOL 262	Micro-techniques	ZOOL 103	2 (1+0+2)
BOT 346	Pollution and Environmental Production		2(1+0+2)
Total			18

<b>Elective courses from the Specialization (Student elects 10 credit hours)</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Pre-requisite</b>	<b>Credits (Lect - Exer- Pract)</b>
MBIO 251	Molecular Biology	MBIO 140	2 (1+0+2)
MBIO 335	Biodegradation		2 (1+0+2)
MBIO 345	Microbial Interactions		2 (1+0+2)
MBIO 346	Mining Microbiology		2 (1+0+2)
MBIO 348	Lichenology		2 (1+0+2)
MBIO 349	Yeast		2 (1+0+2)
MBIO 466	Introduction to Petroleum Microbiology		2 (1+0+2)
MBIO 487	Plankton		2 (1+0+2)
<b>Total</b>			<b>16</b>

**List of service courses to Other Specialization and collages.**

<b>Course Code</b>	<b>Course Title</b>	<b>Benefitting Department/Colleges</b>	<b>Credit</b>
MBIO 140	General Microbiology	BOT – ZOOL - BCH	3 (2+0+2)
MBIO 240	Laboratory Skill	BOT – ZOOL	2 (0+0+4)
MBIO 250	General Virology	BOT – ZOOL	3 (2+0+2)
MBIO 260	General Bacteriology	BOT – ZOOL	3 (2+0+2)
MBIO 270	General Mycology	BOT – ZOOL	3 (2+0+2)
MBIO 320	Microbial Diagnoses	BOT	2 (1+0+2)
MBIO 340	Microbial Ecology& Pollution	BOT – ZOOL	3 (2+0+2)
MBIO 344	Sanitation and Water microbiology	BOT – ZOOL	2 (1+0+2)
MBIO 346	Mining Microbiology	BOT – ZOOL	2 (1+0+2)
MBIO 348	Lichenology	BOT – ZOOL	2 (1+0+2)
MBIO 381	Plankton	BOT – ZOOL	2 (1+0+2)
MBIO 450	Medical Virology	BCH	3 (2+0+2)
MBIO 460	Medical Bacteriology	BCH	3 (2+0+2)
MBIO 465	Industrial Microbiology	BOT	2 (1+0+2)
MBIO 469	Antibiotics	BOT	3 (2+0+2)
<b>Total</b>			<b>38</b>