

**COMSATS Institute of Information Technology**  
**Registrar Office, Principal Seat, Islamabad**

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No: CIIT-Reg/Notif-650/12/974

July 3, 2012

**NOTIFICATION**

**Scheme of Studies of Bachelor of Science (BS) in Microbiology**

It is hereby notified that the Academic Council in its 13<sup>th</sup> meeting held on June 04, 2012 approved the following scheme of studies of Bachelor of Science (BS) in Microbiology program w.e.f Fall 2012 at CIIT system:

- |  |          |
|--|----------|
| 1. Minimum Duration:                     | 04 Years |
| 2. Minimum No. of Semesters:             | 08       |
| 3. No. of Credit Hours in each Semester: | 12-19    |

4. Course Work	<u>Min No. of Courses</u>	<u>Min No. of Credit Hours</u>
i. Core Courses (List attached)	37	126
ii. Institutional Elective Courses (List attached)	03	09
<b>Total No. of Courses of the Program:</b>	<b>40</b>	
<b>Total No. of Credit Hours of the Program:</b>		<b>135</b>

**Note:**

**The Regulations relating to Undergraduate Degree Programs approved by the Competent Authority and amended from time to time shall be applicable.**

This issues with approval of the Competent Authority.

  
**Nadeem Uddin Qureshi**  
**Additional Registrar**

**Encl: (3 pages including this page)**

**Distribution:**

1. Dean Faculty of Science, CIIT.
2. Chairperson, Department of Biosciences, CIIT.
3. Incharge CIIT Islamabad Campus.
4. All HoDs Department of Biosciences, CIIT, Campuses.
5. Controller of Examinations, CIIT.
6. Incharge Examinations, CIIT Campuses.

**CC:**

1. PS to Rector
2. PA to Registrar

**List of Core Courses**

Serial No.	Course Code	Course Title	Credit Hours	Prerequisites
1.	BIO130	Cell Biology	4(3, 1)	BIO130
2.	BIO132	Principles of Biochemistry I	4(3, 1)	
3.	BIO231	Fundamentals of Genetics	4(3, 1)	
4.	BIO234	Principles of Biochemistry II	3(3, 0)	BIO132
5.	BIO240	Introductory Molecular Biology	3(3, 0)	BIO132
6.	BIO310	Introduction to Bioinformatics	4(2, 2)	BIO240 & CSC101
7.	BIO333	Statistical Methods in Biology	3(3, 0)	
8.	BIO405	Research Methodology and Bioethics	3(3, 0)	
9.	BIO534	Advanced Statistics	3(3, 0)	BIO333
10.	BMI150	Basic Microbiology	4(3, 1)	
11.	BMI220	Introduction to Bacteriology	3(2, 1)	BMI150
12.	BMI221	Introductory Biotechnology	4(3, 1)	BIO240
13.	BMI225	Introduction to Mycology	4(3, 1)	BMI150
14.	BMI232	Introductory Physiology	3(3, 0)	
15.	BMI252	Basic Medical Microbiology	3(2, 1)	BMI150
16.	BMI306	Environmental Microbiology	3(3, 0)	BMI150
17.	BMI308	Immunology I	3(2, 1)	
18.	BMI312	Evolution	3(3, 0)	
19.	BMI330	Microbial Genetics	3(3, 0)	BIO231 and BIO240
20.	BMI340	Microbial Physiology	3(3, 0)	BMI232 and BIO132
21.	BMI346	Fundamentals of Genomics and Proteomics	3(3, 0)	BIO240
22.	BMI401	Virology	3(3, 0)	BMI150
23.	BMI410	Immunology II	3(2, 1)	BMI308
24.	BMI415	Independent Research Project/ Internship	12(0, 12)	
25.	BMI420	Applied Microbiology	3(3, 0)	BMI150
26.	BMI432	Epidemiology	3(3, 0)	
27.	BMI436	Plant-Microbe Interactions	2(2, 0)	BMI306
28.	BMI517	Principles of Enzymology	3(3, 0)	BIO234
29.	CSC101	Introduction to Computing	3(2, 1)	CSC101
30.	CSC141	Introduction to Computer Programming	3(3, 0)	CSC101
31.	HUM100	English Comprehension and Composition	3(3, 0)	HUM100
32.	HUM102	Report Writing Skills	3(3, 0)	HUM100
33.	HUM103	Communication Skills	3(3, 0)	HUM100
34.	HUM110	Islamic Studies	3(3, 0)	HUM110

35.	HUM111	Pakistan Studies	3(3, 0)	HUM111
36.	MTH100	Mathematics I	3(3, 0)	MTH100
37.	MTH101	Calculus I	3(3, 0)	

### List of Institutional Elective Courses

Serial No.	Course Code	Course Title	Cr.Hrs.	Pre-requisite
1.	ECO102	Economics	3(3, 0)	
2.	ECO200	Introduction to Development Economics	3(3, 0)	
3.	ECO300	Engineering Economics	3(3, 0)	
4.	HUM200	Business Communication Workshop	3(3, 0)	HUM100
5.	HUM202	Creative Thinking and Decision Making	3(3, 0)	
6.	HUM220	Introduction to Psychology	3(3, 0)	
7.	HUM221	International Relations	3(3, 0)	
8.	HUM223	Introduction to Philosophy	3(3, 0)	
9.	HUM310	Islamic History	3(3, 0)	
10.	HUM320	Introduction to Sociology	3(3, 0)	
11.	HUM430	French	3(3, 0)	
12.	HUM431	German	3(3, 0)	
13.	HUM432	Arabic	3(3, 0)	
14.	HUM433	Persian	3(3, 0)	
15.	LAW300	Corporate Law	3(3, 0)	
16.	MGT100	Introduction to Business	3(3, 0)	
17.	MGT101	Introduction to Management	3(3, 0)	
18.	MGT131	Financial Accounting	3(3, 0)	
19.	MGT403	Entrepreneurship	3(3, 0)	MGT101
20.	*MGT461	Project Management	3(3, 0)	
21.	MGT463	Productivity and Quality Management	3(3, 0)	MGT101
22.	MGT513	New Product Development	3(3, 0)	

\*No pre requisite course is required for the institutional elective course "MGT461 Project Management" for students of Bachelor of Science in Microbiology.

*Indira*