

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

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No: CIIT-Reg/Notif-~~64~~12/973

July 3, 2012

**NOTIFICATION**

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

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 Biotechnology program with effect from Fall 2012 at CIIT system:

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|--|----------|
| i. Minimum Duration:                       | 04 years |
| ii. Minimum No. of Semesters:              | 08       |
| iii. No. of Credit Hours in each Semester: | 14-18    |

	<u>Min No. of Courses</u>	<u>Min No. of Credit Hours</u>
iv. <b>Course Work</b>		
i. Core Courses (List attached)	42	123
ii. Elective Courses (List attached)	03	09
<b>Total No. of Courses.</b>	<b>45</b>	
<b>Total No. of Credit Hours</b>		<b>132</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 the approval of the Competent Authority.

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

**Encl:** (pages 03 in total including this page)

**Distribution:**

1. Dean Faculty of Science, CIIT
2. All Directors CIIT System
3. Chairman, Department of Environmental Sciences, CIIT
4. All Incharges, Academic Sections, CIIT Campuses
5. All HoD's/Incharges, Department of Environmental Sciences, CIIT Campuses
6. Controller of Examinations, CIIT
7. All Incharges, Examination Departments, CIIT Campuses

**CC:**

1. PS to Rector
2. PA to Registrar

## LIST OF CORE COURSES

Sr.#	Course Code	Course Title	Credit Hours	Pre-requisites
1.	BIO150	Fundamentals of Microbiology	3(2, 1)	
2.	BIO240	Introductory Molecular Biology	3(3, 0)	BTY110
3.	BIO344	Molecular Genetics	3(3, 0)	BIO240
4.	BIO346	Introduction to Genomics	3(3, 0)	BIO240
5.	BSC208	Essentials of Genetics	3(3, 0)	
6.	BSC302	Fundamentals of Biotechnology	3(3, 0)	BIO240
7.	BSC303	Immunology	2(2, 0)	
8.	BSC401	General Virology	3(3, 0)	BIO150
9.	BSC402	Bioethics and Safety	3(3, 0)	
10.	BTY100	Introductory Cell Biology	3(3, 0)	
11.	BTY110	Biochemistry I	3(2, 1)	
12.	BTY111	Enzymology	2(2, 0)	
13.	BTY160	Cell and Tissue Culture	3(2, 1)	
14.	BTY211	Biochemistry II	3(3, 0)	BTY110
15.	BTY230	Genetic Resources and Conservation	3(3, 0)	
16.	BTY260	Introduction to Bioinformatics	3(2, 1)	BIO240, CSC101
17.	BTY261	Bioprocess Technology	3(3, 0)	
18.	BTY300	Microbial Genetics	3(2, 1)	BIO150
19.	BTY320	Introduction to Nanobiotechnology	3(3, 0)	
20.	BTY321	Food Biotechnology	3(2, 1)	
21.	BTY322	Environmental Biotechnology	3(3, 0)	
22.	BTY323	Health Biotechnology	2(2, 0)	
23.	BTY360	Renewable Resource Technology	3(3, 0)	
24.	BTY421	Recombinant DNA Technology	3(2, 1)	BSC302
25.	BTY422	Industrial Biotechnology	2(2, 0)	
26.	BTY423	Forensic Biotechnology	2(2, 0)	
27.	BTY425	Pharmaceutical Biotechnology	3(2, 1)	
28.	BTY426	Microbial Biotechnology	2(2, 0)	
29.	BTY430	Population Genetics	3(3, 0)	BSC208
30.	BTY460	Bioremediation	3(2, 1)	
31.	BTY464	Agricultural Biotechnology	3(3, 0)	
32.	BTY470	Independent Research Project	6(0, 6)	
33.	CHM325	Analytical Techniques	3(2, 1)	
34.	CSC101	Introduction to Computing	3(2, 1)	
35.	HUM100	English Comprehension and Composition	3(3, 0)	
36.	HUM102	Report Writing Skills	3(3, 0)	HUM100
37.	HUM103	Communication Skills	3(3, 0)	HUM100
38.	HUM110	Islamic Studies	3(3, 0)	
39.	HUM111	Pakistan Studies	3(3, 0)	
40.	MTH100	Mathematics I	3(3, 0)	
41.	MTH161	Introduction to Statistics	3(3, 0)	
42.	MTH262	Statistics and Probability Theory	3(3, 0)	MTH161

*Jadun A. A.*

**LISTS OF INSTITUTIONAL ELECTIVE COURSES**

<b>Sr. #</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Pre-requisite(s)</b>
43.	HUM430	French	3(3, 0)	
44.	HUM431	German	3(3, 0)	
45.	HUM432	Arabic	3(3, 0)	
46.	HUM433	Persian	3(3, 0)	
47.	HUM200	Business Communication Workshop	3(3, 0)	
48.	HUM221	International Relations	3(3, 0)	
49.	HUM310	Islamic History	3(3, 0)	
50.	HUM320	Introduction to Sociology	3(3, 0)	
51.	HUM220	Introduction to Psychology	3(3, 0)	
52.	MGT101	Introduction to Management	3(3, 0)	

*Included*