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

*****

No: CIIT-Reg/Notif-677/12/1001 July 3, 2012

NOTIFICATION

Scheme of Studies of Master of Science (MS) in Biosciences

It is hereby notified that the Academic Council in its 13th meeting held on June 04, 2012 approved the following scheme of studies of Master of Science (MS) in Biosciences program for session Fall 2012 only at CIIT system:

	Minimum No. of Courses	Minimum Credit Hours
1. MS Course Work		
i. Core Courses (list attached)	02	08
ii. Elective Courses (list attached)	4-8	16
Total Credit Hours of course work		**24**
2. MS Thesis		**06**
3. Total Credit Hours of the Program		**30**

Note:

i. MS supervisors can suggest any graduate level approved course related to the thesis of their students. The students will be asked/allowed to take minimum of two core courses (8 credit hours) with the remaining courses to be suggested by the supervisor.

ii. All Rules and Regulations approved by BASAR from time to time shall be applicable.

This issue with approval of the Competent Authority.

Nadeem Uddin Qureshi
Additional Registrar

Encl: (3 pages in total including this page)

Distribution:

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

CC:

1. PS to Rector
2. PA to Registrar

No: CIIT-Reg/Notif- 677/12/[001

July 3, 2012

List of Core Courses

Course Code	Course Title	Credits Hours
BIO601	Advances in Molecular Biology	4(4, 0)
BIO602	Advances in Microbiology	4(4, 0)
BIO603	Molecular Genetics	4(4, 0)
BIO604	Developmental Biology	4(4, 0)
BIO605	Bioinformatics	4(3, 1)

Thesis

Course Code	Course Title	Credits Hours
BIO800	Thesis	6

List of Elective Courses

Course Code	Course Title	Credits Hours
BIO607	Essentials of Virology	4(4, 0)
BIO610	Applications of Bioinformatics	4(3, 1)
BIO612	Biostatistics for Bioinformatics	4(3, 1)
BIO614	Principles of Computational Biology	4(3, 1)
BIO701	Clinical Biochemistry	4(4, 0)
BIO702	Gene Regulation and Expression	4(4, 0)
BIO703	Molecular Immunology	4(4, 0)
BIO704	Trends in Genomics	4(4, 0)
BIO705	Nucleic Acids	4(4, 0)
BIO706	Protein Chemistry	4(4, 0)
BIO707	Recombinant DNA Technology	4(4, 0)
BIO708	Advances in Molecular Genetics	4(4, 0)
BIO709	Report Writing and Seminar	4(4, 0)
BIO710	Research Techniques	4(2, 2)
BIO711	Biochemistry and Physiology of Vascular Diseases	4(4, 0)
BIO713	Medical Microbiology	4(3, 1)
BIO716	Fundamentals of Microbial Genomics and Proteomics	4(4, 0)
BIO717	Advanced Topics in Microbiology	4(4, 0)
BIO718	Molecular and Cellular Immunology	4(4, 0)
BIO719	Environmental Microbiology	4(4, 0)
BIO720	Bioremediation and Biodegradation	4(3, 1)
BIO721	Industrial Microbiology	4(4, 0)
BIO722	General Micology	4(3, 1)
BIO723	Cancer Genetics	4(4, 0)
BIO724	Cytogenetics	4(4, 0)
BIO725	Human Genetics	4(4, 0)

Jadwadeli

BIO726	Clinical Genetics	4(4, 0)
BIO727	Comparative Anatomy	4(3, 1)
BIO728	Teratology	2(2, 0)
BIO730	Histology	4(3, 1)
BIO731	Histochemistry	2(2, 0)
BIO740	Concepts in Systems Biology	4(4, 0)
BIO742	Principles and Applications of Proteomics	4(3, 1)
BIO743	Special Topics in Bioinformatics	2(2, 0)
BIO744	Systems Biology of Microorganisms	2(1, 1)
BIO750	Molecular Biology of Animal Viruses	4(4, 0)
BIO751	Plant Virology	4(4, 0)
BIO752	Virus-based Gene Therapy and DNA Vaccines	4(4, 0)
BIO753	Advanced Topics in Virology	2(2, 0)
BIO754	Tissue Culture and its Applications	2(1, 1)
BIO755	Epigenetics	3(3, 0)
BIO761	Cell Signaling	2(2, 0)
BIO762	Biomolecular Modeling	3(2, 1)
BTY501	Current Trends in Biotechnology	3(3, 0)
BTY661	Cell and Tissue Culture	3(3, 0)
BTY662	Cell Biology and Genetics	3(3, 0)
BTY663	Conservation Genetics	3(3, 0)
BTY664	Environmental Biotechnology	3(3, 0)
BTY665	Agricultural Biotechnology	3(3, 0)
BTY666	Medical Biotechnology	3(3, 0)
BTY668	Industrial Biotechnology	3(3, 0)
BTY669	Biometrical Techniques in Genetics	3(3, 0)
ENV507	Research Methodology in Environmental Science	3(3, 0)
ENV662	Advanced Techniques in Biotechnology	3(3, 0)
ENV663	Genetic Engineering and Biotechnology	3(3, 0)
ENV671	Biochemistry	3(3, 0)
ENV672	Molecular and Microbial Genetics	3(3, 0)