

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

No: CIIT-Reg/Notif-652 /12/1976

July 3, 2012

NOTIFICATION

Scheme of Studies of Bachelor of Science (BS) in Computer Science


It is hereby notified that the Academic Council in its 13th Meeting held on June 04, 2012 approved the following scheme of studies of Bachelor of Science (BS) in Computer Science with effect from Fall 2012 at CIIT system:

i.	Minimum Duration:	04 Years	
ii.	Minimum No. of Semesters:	08	
		<u>Min. No. of Courses</u>	<u>Min. No. of Credit Hours</u>
iii.	Course Work		
	1. Core Courses (List attached)		
	a. Computer Science Courses	16	
	b. Engineering Courses	04	
	c. Institutional Courses	06	
	d. Allied Courses	06	
	2. Elective Courses (List attached)		
	a. Computer Science Courses	06	
	b. Institutional Courses	02	
	Total No. of Courses:	40	
	Total No. of Minimum Credit Hours:		133

Note:

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

This issues with the approval of the Competent Authority.


Nadeem Uddin Qureshi
Additional Registrar

Encl: (pages 04 in total including this page)

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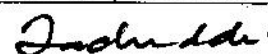
1. Dean, Faculty of Information Sciences and Technology, CIIT.
2. All Directors CIIT System.
3. Chairman, Department of Computer Science, CIIT.
4. Incharge, CIIT Islamabad Campus.
5. All Incharges, Academic Sections, CIIT Campuses.
6. All HoD's/Incharges, Department of Computer Science, CIIT Campuses.
7. Controller of Examinations, CIIT.
8. All Incharges, Examination Departments, CIIT Campuses.

CC:

1. PS to Rector.
2. PA to Registrar.

List of Core Courses

Sr. No.	Course Code	Course Title	Credit Hours	Pre-requisite
Computer Science Courses				
1.	CSC102	Discrete Structures	3(3, 0)	
2.	CSC103	Introduction to Computers and Programming	4(3, 1)	
3.	CSC110	Professional Practices (IT)	3(3, 0)	
4.	CSC201	Design and Analysis of Algorithms	3(3, 0)	CSC103
5.	CSC211	Data Structures	4(3, 1)	CSC103
6.	CSC221	Computer Organization and Assembly Language	4(3, 1)	CSC103
7.	CSC241	Object Oriented Programming	4(3, 1)	CSC103
8.	CSC271	Database Systems	4(3, 1)	CSC103
9.	CSC291	Software Engineering I	3(3, 0)	
10.	CSC312	Automata Theory	3(3, 0)	CSC102
11.	CSC322	Operating Systems Concepts	3(3, 0)	CSC211
12.	CSC339	Computer Communication and Networks	4(3, 1)	
13.	CSC441	Compiler Construction	4(3, 1)	CSC312
14.	CSC456	Human Computer Interaction	3(3, 0)	
15.	CSC462	Artificial Intelligence	3(2, 1)	CSC103
16.	CSC499	Project	6(0, 6)	
Engineering Core Courses				
1.	EEE121	Electric Circuits Analysis I	4(3, 1)	
2.	EEE231	Electronics I	4(3, 1)	EEE121
3.	EEE241	Digital Logic Design	4(3, 1)	CSC102
4.	EEE440	Computer Architecture	3(3, 0)	CSC221
Institutional Courses				
1.	HUM100	English Comprehension and Composition	3(3, 0)	
2.	HUM102	Report Writing Skills	3(3, 0)	HUM100
3.	HUM103	Communication Skills	3(3, 0)	HUM100
4.	HUM110	Islamic Studies	3(3, 0)	
5.	HUM111	Pakistan Studies	3(3, 0)	
6.	MGT101	Introduction to Management	3(3, 0)	
Allied Courses				
1.	MTH104	Calculus and Analytical Geometry	3(3, 0)	
2.	MTH105	Multivariable Calculus	3(3, 0)	MTH104
3.	MTH231	Linear Algebra	3(3, 0)	
4.	MTH242	Differential Equations	3(3, 0)	MTH104
5.	MTH262	Statistics and Probability Theory	3(3, 0)	
6.	MTH375	Numerical Computations	3(3, 0)	MTH231



List of Elective Courses

Sr. No	Course Code	Course Title	Credit Hours	Pre-requisite
7.	CSC253	Computer Graphics	3(3, 0)	CSC103
8.	CSC302	Multimedia Authoring	3(3, 0)	
9.	CSC303	Multimedia Documents and Publishing	3(3, 0)	
10.	CSC304	Multimedia Entertainment and Gaming	3(3, 0)	
11.	CSC306	Media Theory, DVD and Compositing	3(3, 0)	
12.	CSC308	Advanced Website Authoring	3(3, 0)	
13.	CSC310	Entertainment and Interactive Technologies	3(3, 0)	
14.	CSC314	Introduction to Machine Learning	3(3, 0)	
15.	CSC330	E-Commerce	4(3, 1)	
16.	CSC331	Digital Image Processing	3(3, 0)	
17.	CSC332	Network Security	3(3, 0)	
18.	CSC333	Applied Networking	3(1, 2)	CSC339
19.	CSC334	Distributed Computing	4(3, 1)	CSC103
20.	CSC336	Web Engineering	4(3, 1)	CSC103
21.	CSC341	Network Programming	4(3, 1)	CSC103
22.	CSC343	Network Design and Implementation	3(3, 0)	
23.	CSC344	Wireless and Mobile Computing	3(3, 0)	
24.	CSC345	Ubiquities and Pervasive Computing	3(3, 0)	
25.	CSC347	Problem Solving Techniques	3(3, 0)	
26.	CSC348	Information Systems Modeling and Design	3(3, 0)	
27.	CSC349	Open Source Server Administration	3(3, 0)	
28.	CSC350	Learning Management Systems	3(3, 0)	
29.	CSC361	IS Physical Design and Implementation	4(3, 1)	
30.	CSC373	Management Information Systems	3(2, 1)	
31.	CSC392	Software Engineering II	3(3, 0)	CSC291
32.	CSC402	E-Commerce Policy and Practices	3(3, 0)	
33.	CSC412	Cryptography	3(3, 0)	CSC339
34.	CSC421	Systems Programming	3(3, 0)	CSC103
35.	CSC442	Principles of Programming Languages	3(3, 0)	CSC241
36.	CSC443	Scripting Languages	3(3, 0)	CSC336
37.	CSC444	Visual Programming	3(3, 0)	CSC103
38.	CSC445	Modern Programming Languages	3(3, 0)	CSC241
39.	CSC446	Advanced Object Oriented Programming	3(3, 0)	CSC241
40.	CSC451	Multimedia and Hypermedia Systems	3(3, 0)	CSC339
41.	CSC452	Virtual Reality	3(3, 0)	CSC253
42.	CSC454	Computer Animation	3(3, 0)	CSC253
43.	CSC455	Computer Vision	3(3, 0)	CSC253
44.	CSC461	Neural Networks	3(3, 0)	CSC462
45.	CSC471	Distributed Database Systems	3(3, 0)	CSC271
46.	CSC482	Computer Law	3(3, 0)	
47.	CSC494	Software Project Management	3(3, 0)	CSC392

48.	CSC495	Enterprise Resource Planning	3(3, 0)	
49.	CSC496	Business Process Reengineering	3(3, 0)	CSC291
50.	CSC536	Web Technologies and Programming	3(2, 1)	CSC103
51.	CSC552	Virtual Reality for Entrepreneurship	3(3, 0)	
52.	CSC559	Mobile Database Systems	3(3, 0)	
53.	CSC571	Distributed Database Systems for Business	3(3, 0)	
54.	CSC573	Business Management Information Systems	3(3, 0)	
55.	CSC581	Business System Development	3(3, 0)	
56.	CSC582	Legal Framework for IT businesses	3(3, 0)	
57.	CSC593	Information Systems Engineering	3(3, 0)	
58.	CSC595	Business Enterprise Resource Planning	3(3, 0)	
59.	CSC596	Software Requirement Engineering	3(3, 0)	

List of Institutional Electives

Sr. #	Course Code	Course Title	Credit Hours	Pre-requisite
1.	MGT131	Financial Accounting	3(3, 0)	
2.	HUM220	Introduction to Psychology	3(3, 0)	
3.	MGT350	Human Resource Management	3(3, 0)	MGT101
4.	MGT403	Entrepreneurship	3(3, 0)	MGT101
5.	MGT463	Productivity and Quality Management	3(3, 0)	MGT101
6.	MGT513	New Product Development	3(3, 0)	
7.	HUM430	French	3(3, 0)	
8.	HUM431	German	3(3, 0)	
9.	HUM432	Arabic	3(3, 0)	
10.	HUM433	Persian	3(3, 0)	

Included