COMSATS Institute of Information Technology (CIIT)

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No. CIIT-Reg/Notif/ 554   October 29, 2010

NOTIFICATION

In supersession of notification number CIIT-Dir(Acad)/Notif/299 dated February 12, 2010, the Scheme of Studies for **Dual Degree Program (DDP)** with Lancaster University, UK, for Bachelor of Science in Computer Science, BS(CS) effective from Fall 2009 is hereby notified for the students enrolled in the CIIT Lahore campus.

Scheme of Studies

Semester 1

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
HUM110	Islamic Studies	3(3, 0)		
HUM100	English Comprehension and Composition	3(3, 0)		
EEE119	Circuits and Electronics	4(3, 1)		
MTH104	Calculus and Analytic Geometry	3(3, 0)		
CSC105	Fundamentals of Computer Programming	3(3, 0)		
CSC106	Fundamentals of Computer Programming-Lab	1(0, 1)	CSC105	
		17(15, 2)		

Semester 2

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC102	Discrete Structures	3(3, 0)		
MTH105	Multivariable Calculus	3(3, 0)		MTH104
HUM102	Report Writing Skills	3(3, 0)		HUM100
EEE241	Digital Logic Design	4(3, 1)		
CSC244	Object Oriented Concepts and Programming	3(3, 0)		CSC105
CSC245	Object Oriented Concepts and Programming-Lab	1(1, 0)	CSC244	CSC105
HUM111	Pakistan Studies	3(3, 0)		
		20(18, 2)		

Semester 3

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
HUM103	Communication Skills	3(3, 0)		HUM100
CSC222	Computer Organization and Assembly Language	3(3, 0)		CSC105
CSC223	Computer Organization and Assembly Language-Lab	1(0, 1)	CSC222	CSC105
MGT101	Introduction to Management	3(3, 0)		
MTH242	Differential Equations	3(3, 0)		
CSC114	Data Structures and Algorithms	3(3, 0)		CSC105
CSC115	Data Structures and Algorithms-Lab	1(0, 1)	CSC114	CSC105
		17(15, 2)		

Semester 4

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
MGT131	Financial Accounting	3(3, 0)		
	Elective Institutional 1	3(3, 0)		
	Elective Institutional 2	3(3, 0)		
MTH231	Linear Algebra	3(3, 0)		
CSC254	Computer Graphics	3(3, 0)		CSC105
CSC255	Computer Graphics-Lab	1(0, 1)	CSC254	CSC105
MTH262	Statistical and Probability Theory	3(3, 0)		
		19(18, 1)		

Semester 5

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC291	Software Engineering-I	3(3, 0)		
CSC352	Computer Communication and Networks	3(3, 0)		
CSC353	Computer Communication and Networks-Lab	1(0, 1)	CSC352	
CSC201	Design and Analysis of Algorithms	3(3, 0)		CSC105
EEE440	Computer Architecture	3(3, 0)		CSC222
MTH375	Numerical Computations	3(3, 0)		MTH231
		16(15,1)		

Semester 6

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC110	Professional Practices (IT)	3(3, 0)		
CSC272	Database Systems	3(3, 0)		CSC114
CSC273	Database Systems-Lab	1(0, 1)	CSC272	CSC114
CSC421	Systems Programming	3(3, 0)		CSC105
CSC422	Systems Programming-Lab	1(0, 1)	CSC421	CSC105
CSC322	Operating Systems Concept	3(3, 0)		CSC114
	Elective I	3(3, 0)/4(3,1)		
		17-18(15, 2-3)		

Semester 7

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC475	Artificial Intelligence	3(3, 0)		CSC105
CSC456	Human Computer Interaction	3(3, 0)		
CSC457	Human Computer Interaction-Lab	1(0, 1)	CSC456	
CSC312	Automata Theory	3(3, 0)		CSC102
	Elective 2	3(3, 0)/4(3,1)		
CSC499*	Project-I	2(0, 2)		
		13-14(12, 1-2)		

Semester 8

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
	Elective 3	3(3, 0)/4(3,1)		
	Elective 4	3(3, 0)/4(3,1)		
CS 499	Project-II	6(0, 6)		
		12-14(6, 6-8)		
Total Credit Hours:		131-135(114, 17-21)		

Note:
i. In a semester system, courses are normally defined in terms of credit hours. Some courses have further subdivision into theory and lab work. One credit hour of theory is normally equal to one lecture hour in the class room per week per semester. One credit hour of lab work, however, is equivalent to three contact hours in the lab per week per semester.
ii. Courses with prerequisites can only be registered if the prerequisite courses have been passed.
iii. * Project-I: Partial registration of project, however the result will reflect the complete 6 credits. Project is registered and is shown as IP.
iv. The Courses that have labs should be offered along with its Co-requisite. The theory and lab course cannot be offered Separately.
v. If the student fails in either theory 3(3, 0) or lab 1(0, 1) course, the student is considered to be fail in complete course
vi. For Examination: Theory will evaluate from 75% and lab from 25% of total 100% of the course

Optional modules (refer to / attach a separate list if necessary)
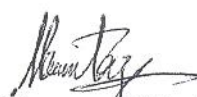**Elective Courses for BS(CS)**
(More courses may be added)

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite (s)
CSC308	Advanced Website Authoring	3(3, 0)		
CSC328	Distributed Computing	3(3, 0)		CSC105
CSC329	Distributed Computing-Lab	1(0, 1)	CSC328	CSC105
CSC331	Digital Image Processing	3(3, 0)		
CSC332	Network Security	3(3, 0)		
CSC337	Web Technologies	3(3, 0)		CSC105
CSC338	Web Technologies-Lab	1(0, 1)	CSC337	CSC105
CSC343	Network Design and Implementation	3(3, 0)		
CSC344	Wireless and Mobile Computing	3(3, 0)		
CSC354	Network Programming	3(3, 0)		CSC105
CSC355	Network Programming-Lab	1(0, 1)	CSC354	CSC105
CSC392	Software Engineering-II	3(3, 0)		CSC291
CSC412	Cryptography	3(3, 0)		CSC352
CSC442	Principles of Programming Languages	3(3, 0)		CSC244
CSC443	Scripting Languages	3(3, 0)		
CSC446	Advanced Object Oriented Programming	3(3, 0)		CSC244
CSC451	Multimedia and Hypermedia Systems	3(3, 0)		CSC352
CSC452	Virtual Reality	3(3, 0)		CSC254
CSC454	Computer Animation	3(3, 0)		CSC254
CSC455	Computer Vision	3(3, 0)		CSC254
CSC458	Compiler Design and Construction	3(3, 0)		CSC312
CSC459	Compiler Design and Construction-Lab	1(0, 1)	CSC458	CSC312
CSC461	Neural Networks	3(3, 0)		CSC475
CSC468	Modern Programming Languages	3(3, 0)		CSC244
CSC469	Modern Programming Languages-Lab	1(0, 1)	CSC468	CSC244
CSC471	Distributed Database Systems	3(3, 0)		CSC272
CSC478	Data Warehousing	3(3, 0)		
CSC479	Data Mining	3(3, 0)		
CSC482	Computer Law	3(3, 0)		
CSC494	Software Project Management	3(3, 0)		
CSC536	Web Technologies and Programming	3(3, 0)		
CSC559	Mobile Database Systems	3(3, 0)		
CSC571	Distributed Database Systems for Business	3(3, 0)		
CSC596	Software Requirement Engineering	3(3, 0)		
BIO310	Bio-Informatics-I	4(3, 1)		
BIO312	Bio-Informatics-II	4(3, 1)		

Elective: Institutional Courses
(More courses may be added)

MGT350	Human Resource Management	3(3, 0)		MGT101
MGT403	Entrepreneurship	3(3, 0)		MGT101
MGT463	Productivity and Quality Management	3(3, 0)		MGT101
MGT513	New Product Development	3(3, 0)		
MGT131	Financial Accounting	3(3, 0)		
HUM220	Introduction to Psychology	3(3, 0)		
	Foreign Languages			
HUM430	French	3(3, 0)		
HUM431	German	3(3, 0)		
HUM432	Arabic	3(3, 0)		
HUM433	Persian	3(3, 0)		

Muhammad Murtaza
Assistant Registrar
29/10/2010

Distribution:
1. *Director CIIT Lahore Campus*
2. *Dean Faculty of Information Sciences and Technology*
3. *Controller of Examinations, CIIT*
4. *Chairman, Department of Computer Science, CIIT*
5. *All HoDs/Incharge in the department of Computer Science*

CC:
1. *SO to Rector, CIIT*
2. *AdR, Acad (Principal Seat)*