

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

No: CIIT-Reg/Notif-674/12/998

July 3, 2012

NOTIFICATION

Scheme of Studies of Master of Science (MS) 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 Master of Science (MS) in Computer Science with effect from Fall 2012 at CIIT system:

	<u>Min. No. of Courses</u>	<u>Min. No. of Credit Hours</u>
i. MS Course Work		
1) Core Courses (List attached)	3	09
2) Elective Courses (List attached)	5	15
Total Credit Hours of course work		24
ii. MS Thesis		06
iii. Total Credit Hours of the Program		30

Note:

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

This issues with the approval of the Competent Authority.


Nadeem Uddin Qureshi
Additional Registrar

Encl: (pages 09 in total including this page)

Distribution:

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	Credits Hours	Pre-requisites
1.	CSC511	Advanced Algorithms Analysis	3(3, 0)	
2.	CSC521	Advanced Topics in Computer Architecture	3(3, 0)	
3.	CSC522	Advanced Topics in Operating Systems	3(3, 0)	

Thesis

Sr. No.	Course Code	Course Title	Credits Hours	Pre-requisites
1.	CSC800	Thesis	6	

List of Elective Courses**Database Systems**

Sr. No.	Course Code	Course Title	Credit Hours	Pre-requisites
1.	CSC673	Advanced Topics in Distributed Databases	3(3, 0)	
2.	CSC674	Advanced Topics in Object Oriented Databases	3(3, 0)	
3.	CSC675	Web Based Databases	3(3, 0)	
4.	CSC676	Advanced Topics in Database Systems	3(3, 0)	
5.	CSC677	Advanced Topics in Data Warehousing	3(3, 0)	
6.	CSC678	Advanced Topics in Data Mining	3(3, 0)	
7.	CSC876	Special Topics in Database Systems	3(3, 0)	
8.	CSC877	Special Topics in Data Warehousing	3(3, 0)	
9.	CSC878	Special Topics in Data mining	3(3, 0)	

Included

Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC612	Advanced Topics in Distributed Computing	3(3, 0)	
2.	CSC631	Advanced Topics in Computer Networks	3(3, 0)	
3.	CSC632	Performance Evaluation of Networks	3(3, 0)	
4.	CSC633	Advanced Topic in Cryptography and Network Security	3(3, 0)	
5.	CSC636	Advanced Topics in Wireless Networks	3(3, 0)	
6.	CSC637	Advanced Topics in Social Networks	3(3, 0)	
7.	CSC638	Advanced Topics in Distributed Systems	3(3, 0)	
8.	CSC652	Advanced Topics in Computer Vision	3(3, 0)	
9.	CSC659	Advanced Topics in Simulation and Modeling	3(3, 0)	
10.	CSC731	Challenged Networks	3(3, 0)	
11.	CSC831	Special Topics in Computer Networks	3(3, 0)	
12.	CSC832	Special Topics in Performance Evaluation of Networks	3(3, 0)	
13.	CSC833	Special Topic in Cryptography	3(3, 0)	
14.	CSC834	Special Topics in Network Security	3(3, 0)	
15.	CSC835	Special Topics in Ad-Hoc Networks	3(3, 0)	
16.	CSC836	Special Topics in Wireless Technologies	3(3, 0)	
17.	CSC837	Special Topics in Social Networks	3(3, 0)	
18.	CSC838	Special Topics in Computer Networking	3(3, 0)	

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Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC626	Advanced Topics in Human Computer Interaction	3(3, 0)	
2.	CSC671	Reverse Engineering	3(3, 0)	
3.	CSC691	Advanced Topics in Software Estimation and Costing	3(3, 0)	
4.	CSC692	Advanced Topics in Requirements Engineering	3(3, 0)	
5.	CSC693	Advanced Topics in Software Project Management	3(3, 0)	
6.	CSC694	Advanced Topics in Software Quality Assurance	3(3, 0)	
7.	CSC695	Advanced Topics in Software Engineering Technologies	3(3, 0)	
8.	CSC697	Advanced Topics in Object Oriented Software Engineering	3(3, 0)	
9.	CSC698	Advanced Topics in Product Line Systems	3(3, 0)	
10.	CSC791	Advanced Topics in Software Scope Management	3(3, 0)	
11.	CSC793	Policy Issues in Software Industry	3(3, 0)	
12.	CSC794	Agent Oriented Software Engineering	3(3, 0)	
13.	CSC796	Knowledge Management for Software Systems	3(3, 0)	
14.	CSC826	Special Topics in Human Computer Interaction	3(3, 0)	
15.	CSC891	Special Topics in Requirements Engineering	3(3, 0)	
16.	CSC892	Special Topics in Product Line Systems	3(3, 0)	
17.	CSC893	Special Topics in Software Scope Management	3(3, 0)	
18.	CSC895	Special Topics in Software Engineering	3(3, 0)	
19.	CSC896	Special Topics in Software Estimation and Costing	3(3, 0)	

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Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC669	Semantic Web	3(3, 0)	
2.	CSC642	Component Software	3(3, 0)	
3.	CSC643	Semantic Web Services	3(3, 0)	
4.	CSC644	E-Services for Business Integration	3(3, 0)	
5.	CSC649	Web Warehousing and Web Mining	3(3, 0)	
6.	CSC677	Advanced Topics in Data Warehousing	3(3, 0)	
7.	CSC678	Advanced Topics in Data Mining	3(3, 0)	
8.	CSC771	Advanced Topics in Semantic Web	3(3, 0)	
9.	CSC871	Special Topics in Semantic Web	3(3, 0)	
10.	CSC877	Special Topics in Data Warehousing	3(3, 0)	
11.	CSC878	Special Topics in Data mining	3(3, 0)	

Artificial Intelligence

Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC652	Advanced Topics in Computer Vision	3(3, 0)	
2.	CSC659	Advanced Topics in Simulation and Modeling	3(3, 0)	
3.	CSC661	Intelligent Systems Design	3(3, 0)	
4.	CSC663	Advanced Topics in Expert Systems	3(3, 0)	
5.	CSC665	Advanced Topics in Knowledge- Based Systems	3(3, 0)	
6.	CSC666	Advanced Topics in Decision Support Systems	3(3, 0)	
7.	CSC667	Natural Language Processing	3(3, 0)	

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8.	CSC668	Machine Learning	3(3, 0)	
9.	CSC761	Advanced Topics in Intelligent Systems	3(3, 0)	
10.	CSC762	Advanced Topics in Neural Networks	3(3, 0)	
11.	CSC763	Advanced Topics in Machine Learning	3(3, 0)	
12.	CSC764	Advanced Topics in Artificial Intelligence	3(3, 0)	
13.	CSC865	Special Topics in Intelligent Systems	3(3, 0)	
14.	CSC866	Special Topics in Neural Networks	3(3, 0)	
15.	CSC867	Special Topics in Machine Learning	3(3, 0)	
16.	CSC868	Special Topics in Artificial Intelligence	3(3, 0)	

Multimedia Technologies

Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC621	Advanced Topics in Multimedia and Hypermedia Systems	3(3, 0)	
2.	CSC622	Advanced Topics in Multimedia Communications and Broadband	3(3, 0)	
3.	CSC623	Advanced Topics in Multimedia System Design	3(3, 0)	
4.	CSC624	Advanced Topics in Multimedia Technologies	3(3, 0)	
5.	CSC625	Advanced Topics in Computer Animation and 3D Modeling	3(3, 0)	
6.	CSC626	Advanced Topics in Human Computer Interaction	3(3, 0)	
7.	CSC627	Advanced Topics in Multimedia Documents and Publishing	3(3, 0)	
8.	CSC628	Advanced Topics in Multimedia Entertainment and Gaming	3(3, 0)	
9.	CSC629	Advanced Topics in Multimedia Authoring	3(3, 0)	
10.	CSC821	Special Topics in Multimedia and Hypermedia Systems	3(3, 0)	
11.	CSC822	Special Topics in Multimedia and Broadband Communications	3(3, 0)	

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12.	CSC823	Special Topics in Multimedia System Design	3(3, 0)	
13.	CSC824	Special Topics in Multimedia Technologies	3(3, 0)	
14.	CSC825	Special Topics in Computer Animation and 3D Modeling	3(3, 0)	
15.	CSC826	Special Topics in Human Computer Interaction	3(3, 0)	
16.	CSC827	Special Topics in Multimedia Documents and Publishing	3(3, 0)	
17.	CSC828	Special Topics in Multimedia Entertainment and Gaming	3(3, 0)	
18.	CSC829	Special Topics in Multimedia Authoring	3(3, 0)	

Computer Graphics and Visualization

Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC652	Advanced Topics in Computer Vision	3(3, 0)	
2.	CSC557	Data Structures for Computer Graphics	3(3, 0)	
3.	CSC650	Advanced Topics in Digital Image Processing	3(3, 0)	
4.	CSC651	Pattern Recognition	3(3, 0)	
5.	CSC653	Advanced Topics in Computer Graphics	3(3, 0)	
6.	CSC656	Advanced Topics in Multimedia and Graphics Language	3(3, 0)	
7.	CSC657	Advanced Topics in Image Processing	3(3, 0)	
8.	CSC658	Advanced Topics in Graphic Information Systems	3(3, 0)	
9.	CSC659	Advanced Topics in Simulation and Modeling	3(3, 0)	
10.	CSC856	Special Topics in Multimedia and Graphics Language	3(3, 0)	
11.	CSC857	Special Topics in Image Processing	3(3, 0)	
12.	CSC858	Special Topics in Graphic Information Systems	3(3, 0)	
13.	CSC859	Special Topics in Simulation and Modeling	3(3, 0)	

Included

Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC649	Web Warehousing and Web Mining	3(3, 0)	
2.	CSC663	Advanced Topics in Expert Systems	3(3, 0)	
3.	CSC665	Advanced topics in Knowledge- based Systems	3(3, 0)	
4.	CSC666	Advanced topics in Decision Support Systems	3(3, 0)	
5.	CSC675	Web Based Databases	3(3, 0)	
6.	CSC677	Advanced Topics in Data Warehousing	3(3, 0)	
7.	CSC678	Advanced Topics in Data Mining	3(3, 0)	
8.	CSC865	Special Topics in Intelligent Systems	3(3, 0)	
9.	CSC877	Special Topics in Data Warehousing	3(3, 0)	
10.	CSC878	Special Topics in Data mining	3(3, 0)	

General Computing Electives

Sr. No.	Course Code	Course Title	Credit Hours	
1.	CSC510	Theory of Computation	3(3, 0)	
2.	CSC601	Advanced Topics in Mathematical Modeling	3(3, 0)	
3.	CSC603	Advanced Topics in Geometric Modeling	3(3, 0)	
4.	CSC605	Advanced Topics in Computer Animation	3(3, 0)	
5.	CSC606	Advanced Topics in Parallel Architecture	3(3, 0)	
6.	CSC611	Advanced Topics in Parallel Processing	3(3, 0)	
7.	CSC612	Advanced Topics in Distributed Computing	3(3, 0)	
8.	CSC615	Advanced Topics in Estimation and Detection Theory	3(3, 0)	

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9.	CSC616	Advanced Topics in Chaos Theory	3(3, 0)	
10.	CSC617	Advanced Topics in Quantum Cryptography	3(3, 0)	
11.	CSC618	Advanced Topics in Grid Computing	3(3, 0)	
12.	CSC619	Advanced Topics in Open Source Systems	3(3, 0)	
13.	CSC801	Special Topics in Mathematical Modeling	3(3, 0)	
14.	CSC806	Special Topics in Parallel Architecture	3(3, 0)	
15.	CSC810	Special Topics in Computer Architecture	3(3, 0)	
16.	CSC811	Special Topics in Parallel Processing	3(3, 0)	
17.	CSC812	Special Topics in Distributed Computing	3(3, 0)	
18.	CSC815	Special Topics in Estimation and Detection Theory	3(3, 0)	
19.	CSC816	Special Topics in Chaos Theory	3(3, 0)	
20.	CSC817	Special Topics in Quantum Cryptography	3(3, 0)	
21.	CSC818	Special Topics in Grid Computing	3(3, 0)	
22.	CSC819	Special Topics in Open Source Systems	3(3, 0)	
23.	CSC679	Research Methodology in IT	3(3, 0)	

