

COURSE CURRICULUM (SYLLABUS -MSIT)

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

Graduate Program

Masters of Computer Science & Information Technology

Southern University Bangladesh



Submitted To:
University Grants Commission (UGC)

Southern University Bangladesh
Faculty of Science & Technology
Department of Computer Science & Information Technology (CSIT)

Masters in Computer Science & Information Technology

Programs of Study:

Summary of Courses:

Types of Courses	No. of Courses	Credit Hours
Core Courses	12	36
Option-I: Communication & Networks Major (Total 63 credit hours)	8	027
Option-II: Database Management Major (Total 60 credit hours)	7	024
Option-III: Multimedia Technologies Major (Total 60 credit hours)	7	024
Option-IV: Software Engineering Major (Total 60 credit hours)	7	024
Total		60-63 credit hours

List of Courses:

List of Core Courses (Common for all majors)

Course Code	Course Title	Contact Hours/Week	Credit Hours	Prerequisite Courses
MS 5101	Computer Programming	2	2	
MS 5102	Computer Programming : Sessional	2	1	
MS 5103	Computer Architecture & Design	3	3	
MS 5105	Numeric Methods	2	2	
MS 5106	Numeric Methods :Sessional	2	1	
MS 5107	Computer Networking	2	2	
MS 5108	Computer Networking :Sessional	2	1	
MS 5201	Operating Systems	2	2	
MS 5202	Operating Systems : Sessional	2	1	
MS 5203	Data Structure & Algorithms	2	2	
MS 5204	Data Structure & Algorithms :Sessional	2	1	
MS 5205	Object Oriented Programming (C++/ Java /C Sharp)	2	2	
MS 5206	Object Oriented Programming : Sessional (C++/ Java /C Sharp)	2	1	
MS 5207	Database Management System	2	2	
MS 5208	Database Management System : Sessional	2	1	
MS 6101	Open Source Tools & Techniques	2	2	
MS 6102	Open Source Tools & Techniques: Sessional	2	1	
MS 6103	E- Commerce	3	3	
MS 6105	Management of Technology & the Digital Organization	3	3	
MS 6107	Computer Security & Cryptography	3	3	
Total			36	

List of Specialized Elective Courses

Option-I: Communication & Networks Major (Total 63 credit hours)

Course Code	Course Title	Contact Hours / Week	Credit Hours	Prerequisite Courses
Any Seven (07) Courses From The Optional List Bellow				
MS 6201	Basic Communication Engineering	2	2	
MS 6202	Basic Communication Engineering: Sessional	2	1	
MS 6203	Computer Interfacing	2	2	
MS 6204	Computer Interfacing: Sessional	2	1	
MS 6205	Cellular Mobile and Satellite Communication Engineering	2	2	
MS 6206	Cellular Mobile and Satellite Communication Engineering :Sessional	2	1	
MS 6207	Fiber Optic Communication	2	2	
MS 6208	Fiber Optic Communication :Sessional	2	1	
MS 6209	Data Communication	2	2	
MS 6210	Data Communication: Sessional	2	1	
MS 6211	VLSI Design	2	2	
MS 6212	VLSI Design: Sessional	2	1	
COMPULSORY				
MS 8000	Project/Thesis	6	6	
			27	

Option-II: Database Management Major (Total 60 credit hours)

Course Code	Course Title	Contact Hours / Week	Credit Hours	Prerequisite Courses
Any Six (06) Courses From The Optional List Bellow				
MS 6213	Java Programming	2	2	ECE-3010
MS 6214	Java Programming: Sessional	2	1	ECE-3011
MS 6215	Data warehousing and Data mining	3	3	
MS 6217	Computer Security	3	3	
MS 6219	Advanced Operating Systems	2	2	CSC-2130
MS 6220	Advanced Operating Systems: Sessional	2	1	CSC-2131
MS 6221	Advanced Database Management System	3	3	
MS 6309	Relational Databases	3	3	
MS 6311	Database Theory	3	3	
MS 6313	Oracle Developer	2	2	
MS 6314	Oracle Developer: Sessional	2	1	
MS 6315	SAL, PHP & PL/SQL	3	3	
COMPULSORY				

MS 8000	Project/Thesis	6	6	
			24	

Option-III: Multimedia Technologies Major (Total 60 credit hours)

Course Code	Course Title	Contact Hours / Week	Credit Hours	Prerequisite Courses
MS 6223	Multimedia concepts	3	3	
MS 6225	Advanced Multimedia Technologies (Audio Visual media)	3	3	
MS 6227	Advanced Graphic Design	3	3	
MS 6229	Advanced Web Design	3	3	
COMPULSORY				
MS 6317	Website Management	3	3	
MS 6319	Internet Telephony &Multimedia Communication	2	2	
MS 6320	Internet Telephony &Multimedia Communication: Sessional	2	1	
COMPULSORY				
MS 8000	Project/Thesis	6	6	
			24	

Option-IV: Software Engineering Major (Total 60 credit hours)

Course Code	Course Title	Contact Hours / Week	Credit Hours	Prerequisite Courses
MS 6231	System Analysis & Design	2	2	
MS 6232	System Analysis & Design: Sessional	2	1	
MS 6233	Object Oriented Software Design using UML	2	2	
MS 6234	Object Oriented Software Design using UML: Sessional	2	1	
MS 6235	Decision Support Systems	2	2	
MS 6236	Decision Support Systems: Sessional	2	1	
COMPULSORY				
MS 6321	Advanced Software Engineering & SPM	3	3	
MS 6323	Advanced Algorithms	3	3	
MS 6325	Advanced Java	3	3	
COMPULSORY				
MS 8000	Project/Thesis	6	6	
Total			24	