

MPhil - IT

[Master of Philosophy – Information Technology]

ELIGIBILITY CRITERIA

a. The candidate should have passed any of the examinations listed below, from a university / degree awarding institution recognized by the Higher Education Commission of Pakistan.
as BS (CS) / BS (SE) 4 Years Degree Program (min 130 credits hours), or Computer Science Conversion Course 2 Years Degree Program referred to “MCS” or “MSc (CS)”, equivalent to 16 years of education.

OR

BCS / BIT-3 years Degree Program: Student will be required to complete the deficiency of difference of total earned credit hours and 130 credit hours (to be determined by the departmental Board of Studies).

OR

of Studies). 16 years Science and Engineering graduates are eligible but they have to cover the deficiency courses (to be determined by the departmental Board

b. Subject to policy/applicability, the candidate shall pass the Entrance Test as required by the HEC.

PROGRAM STRUCTURE

(Program is equivalent to 18 years of education)

Minimum Duration: 2 years; through 4 regular semesters

(Fall/Spring)

Minimum Credits: 30

COURSES OF STUDY:

(Information about the prerequisites (if any) of the course(s) will be provided by the Department at the beginning of the program)

Core Courses (Mandatory):

Total: 15 Credits

Code	Title of Course	Credits
CSC511	Advanced Theory of Computation	3
CSC512	Advanced Algorithm Analysis	3
CSC514	Advanced Computer Architecture	3
CSC515	Advanced Operating Systems	3
CSC581	Advanced Research Methodology for CSC	3

Electives / Specialization courses

Total: 12 Credits

Subject to University offering, the student shall opt one of the tracks given below. Minimum four courses will be required for thesis option within the opted stream:

Code	Title of Course	Credits
Computer Networks		
CSC639	Telecom Management	3
CSC632	Advanced Computer Networks	3
CSC633	Advanced Wireless Technologies	3
CSC634	Network Design and Management	3
CSC636	Voice over IP Communications	3
CSC634	Trends in Technology Management	3
CSC636	Advanced Multimedia System	3
Artificial Intelligence		
CSC601	Machine Learning	3
CSC644	Embedded Systems	3
CSC614	Neural Networks	3
CSC615	Topics in Data Mining	3
CSC616	Knowledge based Systems	3
CSC561	Statistical and Mathematical Methods in Data Science	3
Software Engineering		
CSC652	Software Architecture & Design	3
CSC653	Software Engineering Paradigms and Tools	3
CSC654	Advanced Software Project Management	3
CSC655	Software Quality Assurance	3
CSC656	Formal Methods in Software Engineering	3
CSC657	Geographical Information Systems	3
CSC658	Advanced Web Engineering	3

Thesis / Additional Elective Courses:

Total: 18 Credits

Code	Title of Course	Credits
CSC682	Thesis (with successful defense) in MS / M Phil (IT)*	6
CSC617	Artificial Intelligence	3
CSC619	Simulation and Modeling	3
CSC618	Deep Learning	3
CSC531	information Security Assurance	3

*The Thesis can be substituted with two Elective/Specialization Courses to be chosen from the list of Elective Courses of chosen track given above (subject to University offering).