جامعة قطر
QATAR UNIVERSITY
كلية الهندسة
COLLEGE OF ENGINEERING

MASTER OF SCIENCE IN COMPUTING

Curriculum Structure

The Program (Total 31 Cr Hrs)

Curriculum Components	Total Courses	Total Cr Hrs
Core Courses	3	7
Focus Area Electives	4	12
Major Electives	2 Thesis option / 3 Project option	6 Thesis option / 9 Project option
Thesis / Thesis option	2	6
Project / Project option	1	3
Total	Thesis option: **11** Project option: **12**	**31**

Major Core Requirements (7 Cr Hrs)

Core courses	
Course ID	**Course Title**
GENG 602	Applied Research Methodology
CMPT 671	Algorithm Design and Modeling
CMPT 609	Seminar in Computing

Major Electives (6 Cr Hrs Thesis option / 9 Cr Hrs Project option)

Major Electives	
Course ID	**Course Title**
CMPT 610	Embedded Computing Systems
CMPT 612	Network Security
CMPT 603	Applied Digital Signal Processing
CMPT 622	Human Computer Interaction
CMPT 661	Web Development
CMPS 653	Big Data Analytics
CMPT 672	Enterprise Information Systems
CMPT 645	Simulation and Modeling in Computer Networks
CMPT 642	Information Security

*In addition, courses from a Focus Area Package outside the student's own focus area are considered **Major Electives**. For example, if a student in **Computer Engineering** takes a course from the **Computer Science Focus Area Package** (or vice versa), it will be counted as a Major Elective.

Focus Areas

Focus Area Package (12 Cr Hrs)

Computer Engineering Focus Area	
Course ID	**Course Title**
CMPT 641	Advanced Computer Networks
CMPT 643	Wireless Communication
CMPT 608	Advanced Architecture and Design of Computer Systems
CMPT 611	Visual Computing
CMPT 602	Advanced Robotics
CMPT 683	Special Topics in Computer Engineering

Computer Science Focus Area	
Course ID	**Course Title**
CMPT 606	Advanced Database System
CMPT 605	Advanced Software Engineering
CMPT 623	Distributed Systems and Cloud Computing
CMPT 621	Information Retrieval
CMPT 673	Machine Learning
CMPT 682	Special Topics in Computer Science

Thesis Option Requirement (6 Cr Hrs)

Thesis option	
Course ID	**Course Title**
CMPT 699	Master Thesis

Project Option Requirement (3 Cr Hrs)

Project option	
Course ID	**Course Title**
CMPT 690	Project

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STUDY PLAN

Thesis option

First Year (19 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
GENG 602	Applied Research Methodology	3
CMPT XXX	Focus Area Elective	3
CMPT XXX	Major Elective	3
Spring Semester		
Course #	Course Title	Cr Hrs
CMPT 671	Algorithm Design and Modeling	3
CMPT 609	Seminar in Computing	1
CMPT XXX	Major Elective	3
CMPT XXX	Focus Area Elective	3

Second Year (12 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
CMPT XXX	Focus Area Elective	3
CMPT XXX	Focus Area Elective	3
CMPT 699	Master Thesis	3
Spring Semester		
Course #	Course Title	Cr Hrs
CMPT 699	Master Thesis	3

Track: Project option

First Year (19 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
GENG 602	Applied Research Methodology	3
CMPT XXX	Focus Area Elective	3
CMPT XXX	Major Elective	3
Spring Semester		
Course #	Course Title	Cr Hrs
CMPT 671	Algorithm Design and Modeling	3
CMPT 609	Seminar in Computing	3
CMPT XXX	Major Elective	3
CMPT XXX	Focus Area Elective	3

Second Year (12 Cr Hrs)		
Fall Semester		
Course #	Course Title	Cr Hrs
CMPT XXX	Focus Area Elective	3
CMPT XXX	Focus Area Elective	3
CMPT XXX	Major Elective	3
Spring Semester		
Course #	Course Title	Cr Hrs
CMPT 690	Master Project	3