Introduction to Computer Science (CS)

Computer science is the scientific and practical approach to computation and its applications. Computer science is a discipline concerned with the analysis, design, implementation, maintenance, and evolution of computer-based systems used in almost all walks of life. The graduate program leading to an MS in computer science prepares students for research and professional practice in computer science and related technologies. The program includes both fundamentals and advanced work in the different areas of artificial intelligence and databases, programming languages and software engineering, systems and networks, theoretical computer science, and visual computing.

Coursework for Masters in CS:

Graduate classes are divided into basic classes, which do not have a graduate class as prerequisite, and advanced classes, which have a graduate class as prerequisite.

Fall 2015:

Course Title and Number	Number of Credits	Field
CS 530 : Mathematical Foundations of Computer Science	3	Theoretical Computer Science
CS 531 : Fundamentals of Systems Programming	3	Systems and Networks

Spring 2016:

Course Title and Number	Number of Credits	Field
SWE 619 : Object oriented software specification and construction (pre-requisite for SWE 642)	3	Programming Languages and Software Engineering
CS 583 : Analysis of Algorithms (pre-requisite for CS 600)	3	Theoretical Computer Science
ISA 562 : Information Security Theory and Practice (pre-requisite for ISA 656)	3	Systems and Networks

Fall 2016:

Course Title and Number	Number of Credits	Field
CS 600 : Theory of Computation	3	Theoretical Computer Science
CS 555 : Computer Communications and Networking	3	Systems and Networks

Course Title and Number	Number of Credits	Field
SWE 642 : Software Engineering for the World Wide web	3	Programming Languages and Software Engineering

Spring 2016:

Course Title and Number	Number of Credits	Field
ISA 656 : Network Security	3	Systems and Networks
CS 658 : Networked Virtual Environments	3	Systems and Networks

Program requirements for Graduation

Computer Science course work is divided into five different areas: Artificial Intelligence and Databases, Programming Languages and Software Engineering, Systems and Networks, Theoretical Computer Science, and Visual Computing.

The following requirements should be satisfied:

1. In order to graduate for Masters in Computer Science, we must complete all 30 credits with a grade of B- or better.
2. CS 583 – Analysis of algorithms from the Theoretical Computer Science area and two other additional core courses (9 credits) from two other areas must be completed with a grade of B- or better.
3. At least four courses (12 credits) must be chosen from advanced courses from at least three different areas.

In order to succeed in the Masters' program, it is necessary to take advice from the advisors often. For the advisors to monitor our progress, it is recommended to meet the advisors once every two weeks so that he can evaluate our progress in the graduate program.