



## Faculty of Information Technology & Computer Sciences

### Computer Sciences Department

### MSc. in Computer Sciences- Thesis Track

#### A. Admission Requirements:

Students wishing to enroll in this program must satisfy the following two conditions:

- Have a bachelor degree in any of the majors of Information Technology, Computer Science, and Computer Engineering. It is possible also to consider applicants from other disciplines related to information technology.
- Meeting the English language requirements as outlined by the decisions of the Higher Education Council.

#### B. Degree Requirements:

1. Meeting the conditions stipulated in the Master program regulations number (3) for the year 2011.
2. Completion of remedial courses recommended by the department graduate studies committee.
3. Studying and successfully passing at least (24) credit hours from the level of (600) and above.

#### 1. Core Courses: (15) credit hours

Course code	Course name	Credit hours
CS 603	Research Methodology	3
CS 630	Advanced Operating Systems	3
CS 634	Computer Network Architectures	3
CS 651	Advanced Analysis and Design of Algorithms	3
CS 670	Advanced Artificial Intelligence	3



**2. Elective courses for a total of (9) credits selected from the following list of courses, of which (9) credits must be from the courses offered by the department of Computer Sciences:**

**Study (6) credit hours from group (A) as follows:**

Course code	Course Name	Cr. Hrs
CS 618	Advanced Programming Tools	3
CS 631	Advanced Computer Architecture	3
CS 632	Parallel Processing	3
CS 636	Distributed and Network Operating Systems	3
CS 637	Advanced Compiler Construction	3
CS 638	High Performance Computing	3
CS 671	Natural Language Processing	3
CS 672	Knowledge-Base Systems	3
CS 673	Pattern Recognition	3
CS 674	Neural Networks	3
CS 680	Advanced Computer Graphics	3
CS 682	Data Encryption	3
CS 691	Special Topics	3

**Study (3) credit hours from group (B) as follows:**

Course code	Course Name	Cr. Hrs
CIS 641	Advanced Software Engineering	3
CIS 646	Advanced Object – Oriented Design	3
CIS 662	Database Design	3
CIS 666	Web-Based Information Retrieval Systems	3
CIS 667	Advanced Data Mining and Analysis	3
MIS 630	Information Systems Management	3
CE 612	Advanced topics in Microprocessor System Design	3
CE 614	Image Processing and Computer Vision	3
CE 615	Machine Learning	3
Math 621	Advanced Numerical Analysis	3
Stat 681	Statistical Computations	3

**3. Preparation of a Master Thesis and passing its defense exam.**

The master thesis is (9) credit hours appearing for registration purposes as follows:

Course Code	Course Name	Credit Hours
CS. 699A	Master Thesis	0
CS. 699B	Master Thesis	3
CS. 699C	Master Thesis	6
CS. 699D	Master Thesis	9