	CS695	Project Implementation		Credit Units	3
D E S C R I P T I	After the based or	e project proposal is approved, the stu the approved proposal under the close	Idents will work on their project e supervision of the faculty men	ct implementation nber(s).	
O N	Pre-req	uisite:	Project Proposal		

	CS700 Dissertation		Creati Units	<u> </u>		
D E S C R I P T I O N	Thesis Track students will choose their research topics under the simembers. After initial agreement of the dissertation topic, the objectives of the research and prepare the research proposal under supervisor(s). In the proposal, he/she will be required to (i) conduct identify and define the problem clearly (iii) decide scope of the assumptions and limitations (iv) ensure the originality of the research approach and methodology used in the research and (vi) present the ensure successful presentation and approval of the proposal by the depart continue their research under the close guidance of their supervisor(students will submit their dissertation for evaluation. Thesis track defend their dissertations in front of a committee.	upervisi student er the g an exha problem propos xpected tment, s). Upo student	ion of the faculty needs to define guidance of their austive survey (ii) n and provide its sal (v) suggest the results. After the the students will n completion, the as are required to			
	Pre-requisite: Department Approval					

# 2.4.2. MS CIS Program Study Plans and Curricula

The curriculum of the degree program includes a balance between theory, applications and research. Further core and elective requirements are set to complete the master in computer information systems. The students are allowed to choose one of the following two tracks:

- Thesis Track
- Coursework Track

Both of the above tracks will provide students with a theoretical background and solid foundation in information systems. Further, the students will be exposed to the latest tools, techniques and technologies to have innovative ideas in the area of computer science.

## 2.4.2.1. Thesis Track Study Plan

The thesis track study path requires students to undertake faculty guided research leading to successful completion of a dissertation. This option is suitable for students interested in further study or choosing a R&D career. It will provide students with experience in conducting research in academic or industrial significance. A detail research proposal is to be submitted and approved by the department prior to successful completion of the dissertation. The Thesis Track program comprises 36 units whose distribution is given in the following Table 3.6.

Year	First Sem	ester		Second Semester		
	Course #	Course Title	Units	Course #	Course Title	Units
	0912610	Advanced Information Systems	3	0912613	Advanced Object Oriented Design and Development	3
1	912611	Advanced Database	3	0912615	Research Methodology	3
	0912612 IT Infrastructure 3 Elective 1		Elective 1	3		
	Total 9			Total		9
	First Semester			Second Se	mester	
	Course #	Course Title	Units	Course #	Course Title	Units
2		Elective 2	3	0912700	Dissertation	9*
2		Elective 3	3			
		Elective 4	3			
	Total		9	Total	·	9
* Dissertation can be registered earlier and may be extended over the maximum duration of the degree						

#### Table 2.6: Research Track Study Plan

## 2.4.2.2. Coursework Track Study Plan

The coursework track students will undertake a faculty guided research project in a mutually agreed topic/area. This project component equips students with a strong foundation in theory and practice of Information Systems, and provides them new skills and analytical tools necessary to survive in this competitive market. Therefore, the project topic should be carefully selected to reflect the curriculum objectives. A project proposal is to be submitted and approved by the department followed by the project implementation. The Coursework Track program comprises 42 units whose distribution is given in the following Table 3.7.

Year		First Semester		Second Semester		
	Course #	Course Title	Units	Course #	Course Title	Units
	0912610	Advanced Information Systems	3	0912613	Advanced Object Oriented Design and Development	3
1	0912611	Advanced Database Management Systems	3	0912615	Research Methodology	3
	0912612	IT Infrastructure	3		Elective 1	3
					Elective 2	3
	Total			Total		12
	First Semester			Second Semester		
	Course #	Course Title	Units	Course #	Course Title	Units
	0912690	Project Proposal*	3	0912695	Project Implementation	6*
2		Elective 3	3		Elective 6	3
		Elective 4	3			
		Elective 5	3			
	Total*		12	Total		9

#### Table 2.7: Coursework Track Study Plan

### 2.4.2.3. Pre-requisites, Core and Elective Courses for MS CIS Program

The pre-requisite courses are for those having no background in Information Systems. These courses are designed to provide a foundation to enable them to start main courses of the degree program. The courses to be taken by each student will be decided by the department on case basis considering her/his background. The following Table provides the list of pre-requisite courses for the MS CIS program.

Course #	Course Title	Units
0912430	Information Systems Concepts	3
0912431	Database Concepts and Design	3
0912432	System Analysis and Design	3
0914430	Communication and Network Fundamentals	3
0911430	Fundamentals of Programming	3

#### **Table 2.8: Pre-requisite Courses**

Core courses reflect a minimum level of knowledge in the field of IS and are designed to provide a common foundation in the field of Information Systems. They prepare students for specialized elective courses for both the tracks. The core courses offered in the degree program are given in the Table below.

#### Table 2.9: Core Courses

Course #	Course Title	Units
0912610	Advanced Information Systems	3
0912611	Advanced Database Management Systems	3
0912612	IT Infrastructure	3
0912613	Advanced Object Oriented Design and Development	3
0912615	Research Methodology	3

Elective courses are based upon knowledge areas proposed by the Association of Computing Machinery. These courses cover a variety of areas in the field of Information Systems and range from technology-oriented to managementoriented courses. The students can select courses based on their individual learning goals and career objectives. The elective courses offered in the program are given in the following Table.

Course #	Course Title	Units
0912620	Information Systems Security	3
0912621	Consulting in Information Systems	3
0912622	Designing and Implementing Data Warehouses	3
0912623	Advanced Web Based Systems	3
0912624	Enterprise Resource Planning	3
0912625	Information Systems Audit and Control	3
0912626	Managing Information Systems Functions	3
0912627	Information Retrieval and Extraction	3
0912628	Multimedia Systems Design	3
0912629	Knowledge Management	3
0912630	Usability Analysis and Testing	3
0912631	Pervasive and Ubiquitous Information Systems	3
0912632	Decision Support Systems	3
0912633	Service Oriented Computing	3
0912634	Special Topics in Information Systems	3

### **Table 2.10: Elective Courses**

## 2.4.2.4. Course Descriptions of MS CIS Program

	IS430	Information Systems Concepts	Credit Units	3
D E S C R I P T I O N	This contopics recomponents components function information of varioon The section include organization manage	urse is divided into two parts. The first part aims to introduce the belated to Information Systems (IS). It covers topics such as: systems ents and relationships; specification, design, and re-engineering non-procedural programming languages; object oriented design; s, and architecture; networks and telecommunication systems tion security, crime, and ethics. This course also includes presentate us types of Information Systems and their applications at different n ond part of the course focuses on IS management. Topics to be constrained to provide informations, and the ways in which data is used to provide informational theory and structure, business process management, infiment; and use of computer technology in business.	pasic concepts and s concepts; system of IS; procedural database features, and applications; ion and discussion hanagement levels. overed in this part s (technology) in mation structures; formation systems	
	Pre-req	uisite: None		

College of Computer Sciences and Information Technology,

King Faisal University