

**COMPUTER ENGINEERING PhD Program (on MSc)**

REMEDIAL COURSES				
Dept.	Code	Course Name	CR.	ECTS
CSE	211	Data Structures	NC	
CSE	221	Principles of Logic Design	NC	
CSE	224	Introduction to Digital Systems	NC	
CSE	232	Systems Programming	NC	
CSE	354	Automata Theory and Formal Languages	NC	
MATH	154	Discrete Mathematics	NC	
PROGRAM COURSES				
Dept.	Code	Course Name	CR.	ECTS
CSE	6xx	Departmental Elective I	3	10
CSE	5/6xx	Departmental Elective II	3	10
CSE	5/6xx	Departmental Elective III	3	10
CSE	5/6xx	Departmental Elective IV	3	10
	6xx	Free Elective I	3	10
		Free Elective II	3	10
		Free Elective III*	3	10
CSE	690	PhD Seminar	NC	2
CSE	691	Independent Study for Qualifying Exam	NC	30
CSE	700	PhD Dissertation	NC	150
		TOTAL	21	252
EXTRA/NON-DEGREE COURSES				
Dept.	Code	Course Name	CR.	ECTS
		Extra/Non-degree	NC	

* If a student did not take a research methods/methodologies course during MS work, he/she shall take one of the courses in Research Methodologies instead of Free Elective III.

Course Group	Description
Departmental Elective I	CSE 6XX, Computer Engineering courses under the GSNAS.
Departmental Elective II-IV	Computer Engineering courses under the GSNAS.
Free Elective I	6XX, by approval of advisor and CSE department.
Free Elective II-III	Unrestricted, by approval of advisor and CSE department.
Research Methodologies	PHYS 514, ESYE 501, BTEC 550.
Extra/Non-degree	Optional non-credit (NC) courses that are not part of the program.
Remedial Courses	Undergraduate level courses offered by department.