



NEWPORTS INSTITUTE OF COMMUNICATIONS & ECONOMICS

BS Software Engineering

Program Duration: 04 Year

Admission Requirements

12 Years of education, Intermediate/ A-Level or equivalent with Biology/ Mathematics, Chemistry/ Computer Sciences and Physics, DAE in Computers/Electrical/Electronics, with minimum 2nd Division.

Deficiency; “Students with premedical, must pass deficiency courses of mathematics of 6 credit hours in first 2 semesters”.

NEWPORTS Entry Test/Interview is mandatory.

INTRODUCTION

The BS (Software Engineering) program has been designed to equip students in the applied fields of Software Engineering that focuses on the systematic development of software for the industry. It applies the latest software development methodologies for the creation and maintenance of software. We offer market oriented courses as indicated in the electives of the program. We encourage independent thought and readiness to adapt to new technologies by the students. The program is aimed to produce graduates with comprehensive skills with the necessary breadth and depth that is required for completion of higher studies. The program develops creative and innovative ideas in the students to produce original works in software field.

CAREER PROSPECTS

Graduates of the BS Software Engineering program can find career opportunities and applications as a System Analysts, Data Analyst, Software Engineer and Architect and Computer Scientist. Students will be imparted interpersonal, computer and business communication skills required to work and succeed in fields of telecommunications, financial systems, banking, public sector industries etc.



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Scheme of Study:

Road Map

Total semesters: 08

Total Credit Hours: 136

Semester I			Semester II		
S #	Course Name	CR	S #	Course Name	CR
1	INTRODUCTION TO INFORMATION & COMMUNICATION TECHNOLOGIES	3	1	OBJECT ORIENTED PROGRAMMING	4
2	PROGRAMMING FUNDAMENTALS	4	2	Digital Logic Design	4
3	ENGLISH COMPOSITION AND COMPREHENSION	3	3	Probability & Statistics	3
4	CALCULUS AND ANALYTICAL GEOMETRY	3	4	Communication & Presentation Skills	3
5	PAKISTAN STUDIES	2	5	University Elective – 1	3
6	APPLIED PHYSICS	3	6	ENTREPRENEURSHIP	3
Total Credit Hours		18	Total Credit Hours		18
Semester III			Semester IV		
S #	Course Name	CR	S #	Course Name	CR
1	DATA STRUCTURES AND ALGORITHMS	4	1	OPERATING SYSTEMS	4
2	SOFTWARE REQUIREMENTS ENGINEERING	3	2	DATABASE SYSTEMS	4
3	HUMAN COMPUTER INTERACTION	3	3	SOFTWARE DESIGN AND ARCHITECTURE	3
4	LINEAR ALGEBRA	3	4	PROBABILITY AND STATISTICS	3
5	PRINCIPLES OF PSYCHOLOGY	3	5	ARTIFICIAL INTELLIGENCE	3
6	COOPERATE SOCIAL RESPONSIBILITY	1	6	CHINESE LANGUAGE I	3
Total Credit Hours		17	Total Credit Hours		20
Semester V			Semester VI		
S #	Course Name	CR	S #	Course Name	CR
1	SOFTWARE CONSTRUCTION AND DEVELOPMENT	3	1	SOFTWARE QUALITY ENGINEERING	3
2	DATA COMMUNICATION AND COMPUTER NETWORKS	4	2	INFORMATION SECURITY	3
3	BUSINESS COMMUNICATION	3	3	PROFESSIONAL PRACTICES	2
4	SE SUPPORTING- I	3	4	WEB ENGINEERING	3
5	SE SUPPORTING- II	3	5	SE ELECTIVE – I	3
6	CHINESE LANGUAGE II	3	6	SE-SUPPORTING-III	3



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Total Credit Hours			19	Total Credit Hours			17
Semester VII			Semester VIII				
S #	Course Name	CR	S #	Course Name	CR		
1	SOFTWARE PROJECT MANAGEMENT	3	1	SE-ELECTIVE-IV	3		
2	SOFTWARE REENGINEERING	3	2	SE-ELECTIVE-V	3		
3	SE ELECTIVE-II	3	3	ECONOMICS	3		
4	SE ELECTIVE-III	3	4	FINAL YEAR PROJECT-II	3		
5	FINAL YEAR PROJECT-I	3					
Total Credit Hours			15	Total Credit Hours			12