

**Name of Program: Information Systems
 (Focus on Web Technologies)
 (BACHELOR OF SCIENCE)**

Degree: Bachelor of Science

The Information Systems (Focus on Web Technologies) program enables students to apply theoretical concepts to solve real-life problems related to web/mobile and information systems. Courses cover the principles of information systems, including design, implementation, and security, as well as providing hands-on experience-building event-driven graphical user interface applications using industry-standard tools, integrating database management functionality, assessing e-commerce/e-business strategy and needs – that equips students to effectively respond to market demand and industry trends.

GENERAL OBJECTIVES:

- To develop the student's capacity to think, write and speak effectively and creatively;
- To develop an appreciation of and respect for social, moral and ethical values as the foundation of one's relationship to others and one's responsibilities to the community;
- To develop the students analytical, decision-making and communication competencies together with those qualities of self-reliance, responsibility, integrity and self-awareness which will promote personal achievement and contribution to organizations;
- To build breadth of perspective through the general education requirements and provide sufficient specialization to meet basic professional and career requirements;
- To produce competent and confident graduates well suited for workplace responsibilities

SPECIFIC OBJECTIVES:

- To provide students with a foundation in Business in general and IS in particular;
- To develop the students' skills in information systems that provide accurate, timely, consistent and integrated data for effective management decision making;
- To center attention directly on the skills and knowledge required by the profession and to help students acquire knowledge and develop skills in a systematic way;
- To provide students with specialized knowledge of web systems and develop students' skills in web design and development
- To provide students with data and information management skills necessary for decision support

LEARNING OUTCOMES:

- Explain and exemplify principles of information systems
- Demonstrate capability in analyzing, designing and implementing web systems
- Design and built event-driven graphical user interface applications using industry standard tools and integrating database management functionality
- Apply theoretical concepts to solve real life practical problems related to web/mobile and information systems.
- Demonstrate the ability to design and manipulate databases of standalone/web information systems

- Demonstrate the ability to analyze data collected from diverse sources; use quantitative and qualitative tools and methodologies to identify patterns or trends that have direct relationship to business problems
- Analyze contemporary strategies for IS management
- Describe contemporary architectures used in enterprise information systems
- Apply theoretical knowledge in designing secure web systems
- Describe the scope of and approaches to e-commerce/e-business strategy
- Describe the benefits of geographical information systems in the business domain
- Critically evaluate and apply concepts, techniques, strategies, and theories from any appropriate discipline in business contexts.
- Describe and categorize computer networks, models, standards, network management concepts and security risks.

EMPLOYMENT OPPORTUNITIES:

Software Engineering, Systems Programming, Database Administration and Mining, Computer Programming, Systems Analysis and Design, Web Programming, Teaching, E-commerce.

DEGREE REQUIREMENTS	Credits	ECTS
All students pursuing the Bachelor of Science degree in "Information Systems (Focus on Web Technologies)" must complete the following requirements:		
General Education Requirements	21	36
Business Requirements	27	48
Major Requirements	69	139
Free Electives	9	17
Total Requirements	126	240

GENERAL EDUCATION REQUIREMENTS		21	36
COM101	Public Speaking	3	5
CSC135	Writing for Computer Science & Engineering	3	4
ENG103	Instruction in Expository Writing	3	6
MAT115	Statistics I	3	5
General Education Electives		9	16
BUSINESS REQUIREMENTS		27	48
ACC112	Introduction to Financial Accounting	3	5
BUS101	Introduction to Business	3	5

BUS111	Finite Mathematics for Business	3	5
BUS215	Business Research	3	6
ECO101	Principles of Microeconomics	3	5
FIN101	Essentials of Financial Analysis	3	6
MAR101	Introduction to Marketing	3	5
MGT101	Principles of Management	3	5
MGT203	Production and Operations Management	3	6
MAJOR REQUIREMENTS		69	139
CSC131	Programming Principles I	3	6
CSC132	Programming Principles II	3	6
CSC133	Web Technologies	3	5
CSC209	Web Programming	3	6
CSC230	Systems Analysis and Design	3	5
CSC233	Search Engine Optimization and Internet Marketing	3	6
CSC331	Database Management Systems	3	6
CSC341	Human Computer Interaction	3	5
CSC342	The Java Programming Language	3	6
CSC392	Smartphone Programming	3	6
CSC411	Software Engineering I	3	6
CSC412	Software Engineering II	3	6
CSW101	Fundamentals of Information Systems	3	6
CSW205	Fundamentals and Applications of Data Structures	3	6
CSW231	User Interface Development	3	5
CSW241	Networks and Information Security	3	5
CSW341	E-commerce and the Internet	3	6
CSW421	Information Systems Strategy and Management	3	7
CSW431	Data Mining and Web Mining	3	7
CSW490	Senior Project	3	10
Major Electives		9	18

(Students select three (3) of the following courses			
CSC330	Fundamentals of Distributed Systems	3	6
CSC351	Knowledge management	3	6
CSW201	Principles of Information Management Systems	3	6
CSW251	Developing web applications	3	6
CSW271	Multimedia systems	3	6
CSW361	Advanced web applications	3	6
CSW371	Ubiquitous computing	3	6
CSW418	Internship project	3	6
CSW441	Web engineering	3	6
CSW450	Contemporary topics	3	6
CSC460	Cybercrime Concepts and Legal Considerations	3	6
CSW451	Geographical information systems	3	6
CSW461	Complex Networked Systems	3	6
Free Electives		9	17