



SCHOOL OF STEM SYLLABUS



TERM:

INSTRUCTOR:

COURSE CODE: CSC-231

OFFICE HOURS:

COURSE TITLE: Information Analysis and Design

OFFICE LOCATION:

DAY(S) AND TIME(S):

EMAIL:

LOCATION:

PHONE:

COURSE PREREQUISITE: Complete one course from CSC-101, CSC-111, CSC-115, CSC-117 OR CSC-118

CREDITS: 3

COURSE DESCRIPTION:

The course will cover the basic theoretical and analytical foundations for systems planning, formulating strategic plans, optimizing operations in business, designing information systems, and augmenting business activities on web. Topics include five systems cycles, hardware selection criteria, input/output design, file structures, database design and security implementation. This is a case study-oriented course.

STUDENT LEARNING OUTCOMES:

Upon completion of this course:

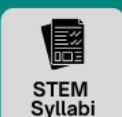
1. Students will learn to assess how information systems are essential for running and managing businesses.
2. Students will understand what exactly is an information systems and how does it work.
3. Students will learn to identify ethical, social, and political issues raised by information systems.
4. Students will learn to evaluate how an information system affects everyday life.
5. Students will understand (Information Technology) infrastructures and its components.
6. Students will learn important principles of database design.
7. Students will understand the principle components of telecommunications network and key networking technologies.
8. Students will understand how information systems are vulnerable to destruction, error and abuse.

TEXTBOOK AND SUPPLEMENTAL MATERIALS:

Laudon K., Laudon J. (2012). Management Information Systems: Managing the Digital Firm, Fourteenth Edition. Upper Saddle River: Prentice Hall

STEM STUDENT HUB

Information & Resources tailored towards students taking any STEM courses



GRADING POLICY:

Item	Weight
Two Exams	25%
Midterm Exam	20%
Final Exam	20%
Case Studies	35%

SAMPLE COURSE SCHEDULE:

Week 1	<p>Chapter 1: Information Systems and in Global Business Today</p> <ul style="list-style-type: none"> • How are information systems transforming business and why are they so essential for running and managing a business today? • What is an information system? How does it work? What are its management, organization, and technology components? Why are complementary assets essential for ensuring that information systems provide genuine value for organizations? • What academic disciplines are used to study information systems and how does each contribute to an understanding of information systems? • How will MIS help my career?
Week 2	<p>Chapter 2: Global E Business and Collaboration</p> <ul style="list-style-type: none"> • What are business processes? How are they related to information systems? • How do systems serve the different management groups in a business and how do systems that link the enterprise improve organizational performance?
Week 3	<p>Chapter 2 (Continues)</p> <ul style="list-style-type: none"> • Why are systems for collaboration and social business so important and what technologies do they use? • What is the role of the information systems function in a business?
Week 4	<p>Review Test 1</p>
Week 5	<p>Chapter 3: Information Systems, Organizations, and Strategy</p> <ul style="list-style-type: none"> • Which features of organizations do managers need to know about to build and use information systems successfully? What is the impact of information systems on organizations? • How do Porter’s competitive forces model, the value chain model, synergies, core competencies, and network economics help companies develop competitive strategies using information systems?
Week 6	<p>Chapter 3 (Continues)</p> <ul style="list-style-type: none"> • What are the challenges posed by strategic information systems and how should they be addressed? <p>Chapter 4: Ethical and Social Issues in Information Systems</p> <ul style="list-style-type: none"> • What ethical, social, and political issues are raised by information systems? • What specific principles for conduct can be used to guide ethical decisions?

Week 7	Chapter 4 (Continues) <ul style="list-style-type: none"> • Why do contemporary information systems technology and the Internet pose challenges to the protection of individual privacy and intellectual property? • How have information systems affected laws for establishing accountability, liability, and the quality of everyday life?
Week 8	Review Midterm Exam
Week 9	Chapter 5: IT Infrastructure and Emerging Technologies Mutual Exclusion: Software Approaches <ul style="list-style-type: none"> • What is IT infrastructure and what are the stages and drivers of IT infrastructure evolution? • What are the components of IT infrastructure? • What are the current trends in computer hardware platforms? • What are the current computer software platforms and trends? • What are the challenges of managing IT infrastructure and management solutions?
Week 10	Chapter 6: Foundations of Business Intelligence: Databases and Information Management <ul style="list-style-type: none"> • What are the problems of managing data resources in a traditional file environment? • What are the major capabilities of database management systems (DBMS) and why is a relational DBMS so powerful? • What are the principal tools and technologies for accessing information from databases to improve business performance and decision making? • Why are information policy, data administration, and data quality assurance essential for managing the firm's data resources?
Week 11	Review Test 2
Week 12	Chapter 7: Telecommunications, the Internet, and Wireless Technology <ul style="list-style-type: none"> • What are the principal components of telecommunications networks and key networking technologies? • What are the different types of networks? • How do the Internet and Internet technology work, and how do they support communication and e-business? • What are the principal technologies and standards for wireless networking, communication, and Internet access?
Week 13	Chapter 8: Securing Information Systems <ul style="list-style-type: none"> • Why are information systems vulnerable to destruction, error, and abuse? • What is the business value of security and control? • What are the components of an organizational framework for security and control? • What are the most important tools and technologies for safeguarding information resources?
Week 14	Review
Week 15	Final Exam

HCCC POLICIES, STATEMENTS, AND SERVICES:

<https://www.hccc.edu/administration/academic-affairs/syllabus-addendum.html>



