DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING
MECHANICAL ENGINEERING PROGRAM, BSC.

Course Syllabus

1. **Course number and name**
   IE 560 Management Information System

2. **Credits and contact hours**
   (3+0) 3 credit hours, 3 contact hours

3. **Course type**
   Face to face Learning Course (3+0)

4. **Instructor's or course coordinator's name**
   Dr. Hanan Saleet

5. **Textbook information**
   Laudon, Kenneth C., and Laudon, Jane P., Management Information Systems-Managing Digital Firm , 15th Edition, Prentice Hall, 2018

   a. **Other supplemental materials**
   -Processes, Systems, and Information: An Introduction to MIS, David M. Kroenke, Earl McKinney, Prentice Hall, 2013
   -Instructor's Notes

6. **Specific course information**
   a. **Catalog description**
   Design & analysis of information systems for management of all types of organizations. Programming & design of Data base management systems. Computer networks & distributed databases, Selections of software and / or hardware for information systems. E-commerce and digitization.
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   b. **Prerequisites or co-requisites**
   co-requisites: IE323Engineering Economy & Management and EE201 Computer Skills II
   c. **The course is:**
   Elective in Industrial Engineering program.

7. **Specific goals for the course**
   a. **Course outcomes:**
   After completion of the course, students are expected to be able to:

CO-(1): Identify basic information system concepts
CO-(2): Recognize how to relate different operations, that take place in an organization, to management information systems
CO-(3): Recognize E-commerce and digitization

1.

   b. **The following student outcomes are addressed by the course:**
   None

8. **Learning Outcomes and their Alignment with Program Educational Objective (PEO's), Methods of Delivery, and Assessment Methods:**

Learning Outcomes	Program PEOs	Method of Delivery	Assessment Method
Course Outcomes			
CO-(1): Identify basic information system concepts	-	Lectures (Example and Problems)	Exams
CO-(2): Recognize how to relate different operations, that take place in an organization, to management information systems	-	Lectures (Example and Problems)	Assignment
CO-(3): Recognize E-commerce and digitization	-	Lectures (Example and Problems)	Project

9. **Weekly Teaching Plan**

Week	Lecture	Topic	Method of Delivery
1	Lec_1	Global E-business and Collaboration	Lecture
	Lec_2	What are business processes? How are they related to information systems?	Lecture
	Lec_3	Why are systems for collaboration and social business so important, and what technologies do they use?	Lecture
2	Lec_4	IT Infrastructure and Emerging Technologies	Lecture
	Lec_5	What is IT infrastructure, and what are the stages and drivers of IT infrastructure evolution?	Lecture
	Lec_6	What are the components of IT infrastructure?	Lecture
3	Lec_7	What are the current trends in computer hardware platforms	Lecture
	Lec_8	What are the current computer software platforms and trends?	Lecture

	Lec_9	What are the challenges of managing IT infrastructure and management solutions?	Lecture
4	Lec_10	Foundations of Business Intelligence: Databases and Information Management	Lecture
	Lec_11	What are the problems of managing data resources in a traditional file environment?	Lecture
	Lec_12	What are the major capabilities of database management systems (DBMS), and why is a relational DBMS so powerful?	Lecture
5	Lec_13	What are the principal tools and technologies for accessing information from databases to improve business performance and decision making?	Lecture
	Lec_14	Why are information policy, data administration, and data quality assurance essential for managing the firm's data resources?	Lecture
	Lec_15	Securing Information Systems	Lecture
6	Lec_16	Why are information systems vulnerable to destruction, error, and abuse?	Lecture
	Lec_17	What is the business value of security and control?	Lecture
	Lec_18	What are the components of an organizational framework for security and control?	Lecture
7	Lec_19	What are the most important tools and technologies for safeguarding information resources?	Lecture
	Lec_20	Achieving Operational Excellence and Customer Intimacy: Enterprise Applications	Lecture
	Lec_21	How do enterprise systems help businesses achieve operational excellence?	Lecture
8	Lec_22	How do supply chain management systems coordinate planning, production, and logistics with suppliers	Lecture
	Lec_23	How do customer relationship management systems help firms achieve customer intimacy?	Lecture
	Lec_24	What are the challenges that enterprise applications pose, and how are enterprise applications taking advantage of new technologies?	Lecture
9	Lec_25	E-commerce: Digital Markets, Digital Goods	Lecture
	Lec_26	What are the unique features of e-commerce, digital markets, and digital goods?	Lecture
	Lec_27	What are the principal e-commerce business and revenue models	Lecture
10	Lec_28	How has e-commerce transformed marketing?	Lecture

	Lec_29	How has e-commerce affected business-to-business transactions?	Lecture
	Lec_30	What is the role of m-commerce in business, and what are the most important m-commerce applications?	Lecture
11	Lec_31	What issues must be addressed when building an e-commerce presence?	Lecture
	Lec_32	Managing Knowledge	Lecture
	Lec_33	What is the role of knowledge management systems in business?	Lecture
12	Lec_34	What types of systems are used for enterprise-wide knowledge management, and how do they provide value for businesses?	Lecture
	Lec_35	What are the major types of knowledge work systems, and how do they provide value for firms?	Lecture
	Lec_36	What are the business benefits of using intelligent techniques for knowledge management?	Lecture
13	Lec_37	Enhancing Decision Making	Lecture
	Lec_38	What are the different types of decisions, and how does the decision- making process work?	Lecture
	Lec_39	How do information systems support the activities of managers and management decision making?	Lecture
14	Lec_40	How do business intelligence and business analytics support decision making?	Lecture
	Lec_41	Building Information Systems	Lecture
	Lec_42	What are the core activities in the systems development process?	Lecture
15	Lec_43	What are the principal methodologies for modeling and designing systems?	Lecture
	Lec_44	What are new approaches for system building in the digital firm era?	Lecture
	Lec_45	What are new approaches for system building in the digital firm era?	Lecture

10. Grade Distribution:

Assessment	Grade	Week No.
- First Exam	20%	
-Second Exam	15%	

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-Assignments (Reports /Quizzes/ Seminar / Tutorials/ Home works ….)	15%	1-16th Week
- Final Examination	50%	16th Week

Note: Make-up exams will be offered for valid reasons. It may be different from regular exams in content and format.