ITM 100 SYLLABUS

ITM 100 Introduction to Information Technology as a Profession

Hours: 3 credit hours / 45 contact hours

Instructor: Ray Trygstad

Textbook, title, author, and year
a. *Information Systems for Business and Beyond* Bourgeois, David T. 2014
b. *Business Processes & Information Technology* Gelinas, Ulric J. Jr., Sutton, Steve G., Federowicz, Jane 2008
c. *Information Technology for Management* Lucas, Henry C. Jr. 2009
d. *Introduction to information systems—16th ed.* Marakas, George M. & O'Brien, James 2013
e. *Information Systems* Watson, Richard T. (Ed.) 2007
f. Supplemental Materials: Online readings as assigned in Blackboard

Specific course information
a. **Catalog description:** Introduces students to concepts of systems, systems theory and modeling, information systems, and system integration. Examines the steps necessary to analyze a business problem and identify and define the computing and information requirements appropriate to its solution, with a focus on how to design, implement, and evaluate a technology-based system to meet desired needs. Students learn to analyze the local and global impact of computing on individuals, organizations, and society. Leads students to recognize of the need for continuing professional development, and imparts an understanding of professional, ethical, legal, security and social issues and responsibilities in information technology. Students write and present, building their ability to communicate effectively with a range of audiences, and using standard planning methodologies design an information system to meet the information needs of a small business.
b. **Prerequisites:** ITM 301 and (ITM 311 or ITM 312 or ITM313)
c. **Required.**

Specific goals for the course
a. **Program Educational Outcome:**
   3. Apply current technical and mathematical concepts and practices in the core information technologies and recognize the need to engage in continuing professional development.
b. **Course Outcomes:** Each successful student will be able to use concepts of systems theory, systems modeling, and system integration to design an information system using standard planning methodologies to meet identified business needs. They will be able to analyze the local and global impact of computing on individuals, organizations, and society, engage in continuing professional development, and discuss professional, ethical, legal, security & social issues and responsibilities.

c. **Course student outcomes:**
   Upon completion of this course the student should be able to do the following:
   - Recall and describe concepts of system theory and system modeling
   - Outline and describe the components of an information system
   - Explain the role of information technology as the facilitating function in a modern business enterprise
   - Discuss considerations for deployment of technology in a business setting
   - Explain the standards of professional communication used within the information technology profession
     o Communicate (understand, and respond) in a manner appropriate to the profession
   - Analyze a business problem and identify and define computing requirements appropriate to its solution
   - Design a computer-based information system to meet desired business needs
   - Describe concepts of system integration and its application to information system design
   - Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles **(ABET Computing Criterion 3.4)**
     o Explain the importance of ethics to the information technology profession
       ▪ Be able to recognize ethical issues and propose appropriate responses to ethical problems
     o Describe the norms of professional behavior as an information technology professional
       ▪ Discuss how professional conduct reflects on and supports the information technology profession
     o Recognize the need for and engage in continuing professional development
   - Function effectively as a member or leader of a team engaged in the design and development of information technology solutions to business problems **(ABET Computing Criterion 3.5)**

Topics to be covered
a. Introduction to Systems & Systems Theory
b. System Modeling Concepts and Methods
c. Introduction to Information Systems
d. Data, Information, and Data Management
e. Networking and Connectivity
f. Communicating Technology & Project Management
g. Information in the Enterprise
h. Systems Analysis & Requirements Definition
i. Systems Design and Implementation
j. Integrating Systems
k. Information in Society and the World
l. Ethics and Professional Responsibility
m. Law, Security, and Professionalism

Each ITM Departmental Syllabus *represents a recent offering of the course. The instructor, textbook(s), course outcomes, and course student outcomes/learning objectives may vary in future semesters.*

June 27, 2020