I. **Course Description:** Study of characteristics of computer-based information systems in organizations. Topics include MIS theory, concepts and issues; systems analysis and design; database design using the relational database model; data communications and networks; and information systems deployed in various functional areas to support workgroup and organizational goals.

II. **Prerequisites:** Completion of all Pre-Business requirements.

III. **Course Learning Outcomes:** After completing this course the students should be able to:
   1. Recognize the competitive and strategic significance of an information system to an organization in a case or actual business situation
   2. Describe the procedures for developing and managing an information system so that the system furthers the strategic, marketing, financial, accounting, or operational plans of an organization
   3. Appraise the need for collecting relevant and up-to-date data and using it to support workgroups or organization goals
   4. Analyze a business situation to determine the information system needs and recommend the systems development steps required to construct the solution
   5. Judge the appropriateness of an information system in a given business situation
   6. Analyze business situations using the IPAC model*

IV. **Course Materials:** Both a textbook and software packages are required for this course. The software packages will be those supported by the University in open labs for word-processing, spreadsheets, electronic presentations, database, Web browsing, e-mail, and collaborative group work. In addition, the instructor may select additional software packages considered necessary for completion of the course projects.

V. **Teaching Methodology:** This course may utilize a cross functional approach. Projects, applications exercises, and cases used to impart the course content will be incorporated from all functional areas of business. Teaching methods may include lecture, group discussion of current events, presentation and discussion of cases, applications exercises, and group projects.

To provide students with sufficient skills to develop the solutions to the application exercises and projects and to analyze information systems’ appropriateness, a minimum of one-fourth of the contact hours should be dedicated to instruction in a computer lab. Any teaching methods used in addition to the methods presented above will be determined by the instructor.
VI. **Evaluation Tools:** This course should include sufficient computer exercises to show the development of realistic systems solutions for a work group or organization information system. These exercises should contain a database component, a web component, and a spreadsheet using problem-solving and decision-making tools. Any additional evaluation methods, such as quizzes or homework, shall be determined by the instructor.

VII. **Course Content:**

A) **Course Topics:**

1. Traditional, current, and evolving technology concepts that provide a foundation for understanding the development, management, and effective use of information and information systems in an organization
   a. The impacts of computer-based information systems and organizations
   b. Computer system hardware and software and their relationships with end-user applications
   c. Data communications and networking concepts, telecommunications devices, protocols and models, the Internet, the Web, intranets & extranets, and the evolving trends in telecommunications
   d. Database management systems components, architectural design and administration issues, and recent developments in database systems such as data warehouse, distributed databases, and data mining

2. Modern applications of information systems in business enterprises
   a. The use of information systems in various functional areas for supporting business and workgroup goals
   b. The fundamentals and evolution of electronic commerce, including business to consumer, business to business, consumer to consumer, mobile commerce developments, and the challenges confronting e- and m-commerce
   c. The use of information systems and software in enterprise collaboration and workgroup management, including intranets, extranets, groupware, and conferencing
   d. Information systems for managerial decision support, including decision support systems, executive information systems, expert systems, and other artificial intelligence systems
   e. Strategic roles of information systems in business administration, business process reengineering, and competitive and survival issues

3. Current and evolving systems development and management practices emphasizing the end-users’ roles and responsibilities
   a. System development life cycle and system analysis and design methodologies
   b. Managing changes brought about by new or revised information systems in organizations
   c. Systems success factors and measurements of systems success and end-user satisfaction
   d. Security, privacy, health, and ethical challenges concerning use of information systems and technologies

Revised and approved by ACs in November 2015
B) Interdisciplinary Content:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Class Hours</th>
<th>Required Graded Work Other Than Exams?</th>
</tr>
</thead>
<tbody>
<tr>
<td>International/Global</td>
<td>1.5</td>
<td>No</td>
</tr>
<tr>
<td>Ethical Issues</td>
<td>1.5</td>
<td>No</td>
</tr>
<tr>
<td>Political Issues</td>
<td>0.25</td>
<td>No</td>
</tr>
<tr>
<td>Social Issues</td>
<td>0.5</td>
<td>No</td>
</tr>
<tr>
<td>Legal/Regulatory Issues</td>
<td>0.5</td>
<td>No</td>
</tr>
<tr>
<td>Environmental Issues</td>
<td>0.25</td>
<td>No</td>
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<tr>
<td>Technology Issues</td>
<td>28</td>
<td>Yes</td>
</tr>
<tr>
<td>Demographics &amp; Diversity</td>
<td>0.5</td>
<td>No</td>
</tr>
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</table>

C) Interdisciplinary Skills:

<table>
<thead>
<tr>
<th>Skill Area</th>
<th>Required Graded Work Other Than Exams?</th>
</tr>
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<tbody>
<tr>
<td>Oral Communication</td>
<td>No</td>
</tr>
<tr>
<td>Written Communication</td>
<td>Optional</td>
</tr>
<tr>
<td>Critical Thinking and IPAC</td>
<td>Yes</td>
</tr>
<tr>
<td>Working in Teams</td>
<td>Optional</td>
</tr>
</tbody>
</table>

* The purpose of the IPAC model is to provide a framework that will allow students to use critical thinking skills to engage in situational evaluation and analysis so they can make effective and efficient decisions to address environmental contingencies they may encounter at work, and for that matter, in life in general. The model is laid out as follows:

- **Issue identified** (Describe clearly the key issue or problem)
- **Principles applied** (Discuss relevant principles, theories, facts, or frameworks)
- **Alternatives considered** (Present alternative options for solving the issue or problem)
- **Conclusion supported** (State and justify your conclusion for solving the issue or problem)