Course title and number       ISEN 230 Informatics for Industrial Engineers
Term (e.g., Fall 200X)       Fall 2016
Meeting times and location   TBD

Course Description and Prerequisites
Structured programming concepts for implementing mathematical and statistical models in industrial engineering problems; emphasis on introductory production and service system problems and computer-based approaches to solve the problems; engineering applications of probability and statistics concepts.
Prerequisites: CSCE 206 or CSCE111 or CSCE 121 or equivalent; Corequisite: STAT 211

Learning Outcomes
Students should be able to
• use spreadsheet and higher level programming language within an industrial engineering context,
• demonstrate understanding of basic terminology associated with production and service systems,
• develop simple quantitative decision models relevant to production and service systems, and
• handle data to drive models and interpret data generated from models.

Instructor Information
Name                        TBD
Telephone number            TBD
Email address               TBD@tamu.edu
Office hours                TBD
Office location             TBD

Textbook and/or Resource Material
Relevant handouts to be provided.

**Grading Policies**

Homework and quizzes: 20%; Exam 1: 20%; Exam 2: 20%; Exam 3: 20%; Final Exam: 20%

Grades assigned are A for 90%–100%, B for 80%–89.99%, C for 70%–79.99%, D for 60%–69.99% and F for less than 60%.

At any time, without warning, a short quiz based on the homework or in-class examples might be given. Quizzes and homework are 5 points. All homework assignments must be handed in at the start of the class period of the day they are due.

**Attendance and Make-up Policies**

Class attendance is not optional. You are expected to attend all class lectures except for university excused absences. With an excused absence, it is still the student's responsibility to find out the homework assignment and be ready for a quiz. Because we often begin class with computer work, it is also important that you arrive on time; otherwise, it is difficult to catch up with the class material. Make-up exams will be given in accordance with University Rules (see Rule 7 at http://student-rules.tamu.edu). The university rule regarding excused absences can be found at http://student-rules.tamu.edu/rule07.

**Course Topics, Calendar of Activities, Major Assignment Dates**

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to the course and Pivot Tables and spreadsheet formatting</td>
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<tr>
<td>2</td>
<td>Review of objects, some spreadsheet basics, and use of higher-level programming language within a spreadsheet</td>
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<td>3</td>
<td>Language constructs, input and output formatting</td>
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<td>4</td>
<td>Worksheets, Range object. Introduction to forecasting</td>
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<td>5</td>
<td>Range object and language constructs continued, Exam 1</td>
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<td>6</td>
<td>Workbooks, Application object, use of solver within spreadsheet</td>
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<td>7</td>
<td>Data input mechanisms</td>
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<tr>
<td>8</td>
<td>Data display and accessibility, handling multidimensional data</td>
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</tbody>
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Developing production problem using spreadsheet, use of solver

Introduction to some practical industrial engineering examples, Exam 2

Blending example

Product mix example

Scheduling example

Scheduling example continued, Exam 3

Other Pertinent Course Information

The course will use computational tools to solve industrial engineering problems. Students are expected to apply prior knowledge of MATLAB and higher level programming language in this course. Relevant handouts will be provided throughout the course.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu

Academic Integrity

For additional information please visit: http://aggiehonor.tamu.edu

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: http://student-rules.tamu.edu/; http://student-rules.tamu.edu/aggiecode; and http://student-rules.tamu.edu/rule20. The complete information of university regulations regarding the handling of academic misconducts (including the appeal process) can be found at http://aggiehonor.tamu.edu/

I, <insert instructor name>, as the rest of the Industrial & Systems Engineering Faculty, uphold the Aggie Honor Code as an axiom of our academic excellence. We consider its sincere observance to be essential for membership in our department and Texas A&M. We extend you the trust conferred to those who faithfully adhere to our honor code. Abuse of this trust is intolerable, thus I will report and assign an extreme penalty to those who do not stand with us in preserving the integrity symbolized by the Aggie
Honor Code, “An Aggie does not lie, cheat, or steal or tolerate those who do.”

In this course the penalty for any violation of the Aggie Honor Code, as minimal as it may be, is F*. 