CENG 4423 Computer Systems Analysis  
Spring 2007  
MWF, 12:30 – 1:20 p.m., ENGR 304

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**Course catalog description:** Basic concepts of problem analysis, model design, and simulation experiments. A simulation will be introduced and used in this course. Prerequisite: INEG 3313 or STAT 3013 and proficiency in a programming language.


**Goal:** The goal of the class it to provide a better understanding of how systems operate and respond to change by modeling, simulating, and analyzing performance of discrete-event stochastic systems.

**Topics:**
1. Modeling, simulating, and analyzing performance of discrete-event stochastic systems. (CE: a-k; CS: a-f, h, j, k)
2. Random-number generation. (CE: a; CS: a, g)
3. Analyzing experimental data with meaningful statistics. (CE: a, k; CS: g)
4. Next-event simulation. (CS: b)
5. Discrete and continuous random variables. (CE: a, k; CS: g)
6. Output analysis. (CE: a, b, k; CS: g)
7. Input modeling. (CE: a, b, k; CS: g)

**Grades:**
Course grades will be determined by these weights:
- Homework: 30%
- Midterm: 20%
- Project: 25%
- Final: 25%

The final class grade will be assigned according to the 10-point scale shown below. The grades may or may not be curved.
- A: 90 – 100%
- B: 80 – 89.9%
- C: 70 – 79.9%
- D: 60 – 69.9%
- F: < 60%

**Homework:** All assignments will be given with a strict deadline, and students are required to submit their assignments on or before the deadline. Homework will be collected at the start of the class on the due date, and late submissions will not be accepted. In case of extenuating circumstances, students are advised to contact the professor as soon as practical. You are encouraged to discuss the course and the assignments with each other; however, your exams and homework should be your own work.

**Attendance:** Attendance will be taken. Attendance will be used as a deciding factor when the final average is between grades. For example, if you have an average of 89.5 and you have attended a high percentage of the classes it may be rounded up to an "A". If you have an average of 89.5 and you have attended a small percentage of the classes it will probably still be a "B".