CSCI 570 Computer Simualtions
Spring 2017
Department of Engineering and Computer Science
Virginia State University, Petersburg, VA 23806

Instructor: Dr. Hui Chen, HM 302Sc, E-mail: `hchen@vsu.edu` Phone: (804)524-5428

Office Hours: 09:00-11:00am MWF and by appointment

Textbook: "Discrete-Event Simulation: A First Course," Lawrence M. Leemis and Stephen K. Park, Upper Saddle River, New Jersey 07458, USA: Pearson Prentice Hall, 2006, ISBN: 0-13-142917-5

Prerequisites: CSCI 287 Data Structures, STAT 340 Probability and Statistics for Computer Scientists; or permission of the instructor

Course Description:

This courses provides an introduction to computational and mathematical techniques for modeling, simulation, and analyzing the performance of various systems by using simulation. The focus of this course is given to discrete-event simulation model, which is both stochastic and dynamic. In addition, this course also provides an introduction to *Monte Carlo* simulation model, which is stochastic but static. The topics to be covered include random-number generation, simple statistics, discrete random variable, continuous random variable, discrete-event simulation, next-event simulation, output analysis, and input modeling.

Administrative Policy:

Students' attendance and active class participation are expected and required. Students are also expected to maintain appropriate affect and demeanor.
Students are expected to review each lecture. The instructor will issue various assignments including in-class exercises, quizzes, homework, projects, and reading assignments to help students master the material taught.
Cheating will not be tolerated and may result in severe academic sanctions.

Course Resources:

Most of the lecture notes are derived from Dr. Evgenia Smirni's lecture slides (See 1). Dr. Smirni is a professor at the College of William and Mary. Many sample programs (in both C and Java) are from Dr. Lawrence M. Leemis's web site (See 2). Dr. Leemis is the co-author of the text book and a professor at the College of William and Mary. His web site has also the errata to the book.

1. Evgenia Smirni, Lecture Slides of CS 426/526 Simulation, Fall 2009, at College of William and Marry, `http://www.cs.wm.edu/~esmirni/Teaching/cs526/`

2. Lawrence M. Leemis, `http://www.math.wm.edu/~leemis/`

Grade Policy:

A student receives a score which consists of three components as shown below:

Component	Percentage
Attendance	5%
Exercises and Homework Assignments	30%
Reading and Presentation	5%
Projects and Labs	20%
Midterm Exam	20%
Final Exam	20%

Based on the total score received, a grade is assigned according to the table below:

Score	Grade
$score \geq 90$	A
$80 \leq score < 90$	B
$70 \leq score < 80$	C
$60 \leq score < 70$	D
$score < 60$	F

Special Accomodations:

Any student who, because of a disability, may require special arrangements in order to meet course requirements should contact me as soon as possible to make necessary arrangements. The instructor may request formal verification.

Important Dates:

Tuesday, Jan. 17	University Classes Begin
Friday, Jan. 20	Last Day to Add/Drop
Tuesday, Feb. 14	Assessment Day
Friday, Feb. 24	Last Day to file Graduation Application
Monday, Mar. 6	Midterm Exams Begin
Saturday, Mar. 11	Midterm Exams End
Sunday-Sunday, Mar. 12-19	Spring Break (No class)
Monday, Mar. 20	Midterm Grades are due in the System by Faculty
Wednesday, Mar. 22	Fall Registration begins
Wednesday, Apr. 12	Fall Registration ends
Friday, Apr. 22	Last Day to Withdraw from on-Campus Classes
Monday, May. 1	Last day of classes
Tuesday, May 2	Reading day
Wednesday, May. 3	Final Examinations begin
Monday, May. 8	Final Examinations end
Tuesday, May. 9	Senior Grades are due in the System
Friday, May. 12	Final Grades are due in the System
Saturday, May. 13	Commencement Exercises

Disclaimer:

The instructor reserves the right to revise this syllabus.