

Spring 2015
IET4405-85X/90X Operations Research – Concepts, Models, & Methods
Syllabus for Traditional, Hybrid, and Online Courses

Instructor: Dr. Gregory L. Wiles

Office: M123

Email: gwiles@spsu.edu (would prefer you use the D2L email)

Phone: 678-915-7314

Office Hours: Posted on D2L website

How to Contact the Instructor

The best way to reach me between class periods is using the D2L email. This way I will know what class you are in already. I will reply as quickly as possible to questions sent over e-mail. If you wish to meet with me in person, you can drop by my office during office hours. For online students, I am also willing to meet with you with an ad-hoc Wimba Classroom live session during the week if necessary.

Email Response Time

I commit to answering all emails within 24 hours from the time you first transmit the email, unless I let you know in advance of travel prohibiting me from doing so (or if I have an emergency). This short response time includes weekends and holidays. At times I will send a mass email to the class or an announcement. This will be through D2L Email and alternately with Hornet Mail. I do not know your Yahoo or Gmail accounts so do not expect any mass emails to those accounts. **CHECK YOUR D2L EMAIL ACCOUNT FREQUENTLY!**

Course Description

Students acquire an understanding of applied operations research concepts, models and methods for engineering and business decision making. Students learn how to use linear programming and associated software for optimizing the use of industrial resources. Students solve industrial problems such as product mix, make vs. buy, investment portfolio design, blending, plant location, capital budgeting, transportation, distribution and assignment problems.

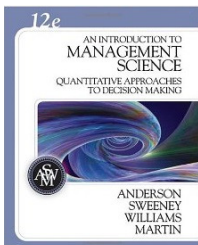
Student Learning Outcomes

By the end of the semester, students should be able to:

1. Determine when a particular operations research model is appropriate based on a problem description, (*Student outcomes A, F, & M*)
2. Identify the stakeholders, decision makers, objectives, variables and constraints of a practical engineering problem, (*Student outcomes A & F*)
3. Formulate a valid operations research model, solve the model using computer software, and interpret the results of the model, (*Student outcomes A, F, & M*)

Textbook

Anderson, Sweeney, Williams and Martin. *An Introduction to Management Science: Quantitative Approaches to Decision Making* (with CD). Twelfth Edition. South-Western College Publishing. 2008. ISBN 9780324399806
PLEASE NOTE THAT THE CD IS NOT REQUIRED!



Prerequisites

- IET 2227 – Introductory Statistics
- Students are expected to have a working knowledge of the Microsoft Office Suite: Excel, Word and PowerPoint or the equivalent (e.g. Open Office).

- You are required to have a calculator that has standard engineering math functions for the exams.
- Students are expected to be able to use D2L and have access to a PC and the Internet.

Desire2Learn (D2L) Course Web Site

This course has a D2L course web site for use by registered students. Any class handouts, slides, grades, announcements, and links will be available there, so please get in the habit of checking it often. To log in, go to: <http://spsu.view.usg.edu>. Your User ID is the same as your email prefix, and initial password is your email password. There are help links on the website or go to: <http://spsu.edu/d2l/student/>

Course Schedule

This course will meet on the dates indicated on the Course Schedule as posted on the course homepage. For hybrid students, we will meet once a week physically in a classroom and the remainder of the week you are responsible for viewing video lectures and attempting suggested homework problems. For online students we will also meet once a week but virtually using a Blackboard Collaborate link (moving from Wimba Classroom) located on the course home page. The remainder of the week you are responsible for viewing video lectures and attempting suggested homework problems.

Assignments

Class lectures assume that students have read the reading assignments in the text. Students are expected to remain current with reading assignments for the classroom lectures. The Course Schedule lists the reading assignments.

Hybrid or On-Line Course Attendance Policy

Hybrid sessions (-850) are designed to be one-half classroom attendance and on-half on-line. The On-Line session (-900) will be attended one-half via on-line meeting room software such as Wimba Classroom and one-half pre-recorded on-line lectures. Both types of classes require the student to view the pre-recorded lecture between any live lectures. It will be the student's responsibility to schedule and view these lectures at your own convenience. The instructor will not monitor who views the recorded lectures and those who do not. It is strongly recommended that you watch the lectures and keep up with class work and class discussions.

Pre-recorded Video Lectures

Students are required to watch the pre-recorded lecture and study the other material in the learning modules listed in the course schedule before they attend the on-campus lecture for a given week. The pre-recorded videos contain important material that will be covered on the exams and this material sometimes covered during the live class. The student should understand that they are required to participate in two classes per week for the live session and one on your own.

Homework

Each week several problems are assigned to help you learn the material and earn a good grade. Homework assignments are intended for you to work before class and will not be taken up for grading; however, parts or all of a homework problem may appear on your exam so it is in your best interest to do and understand the homework. You may work with partners if you wish.

Attendance Policy

Attendance to the live portion of the course is **STRONGLY** recommended. Your attendance in class will not directly impact your grade in this course unless you are absent for an exam or you fail to complete any other assignment/quiz on time. However, it should be noted that students who attend class on a regular basis normally perform better on exams, and other graded assignments. Students who miss class for any reason are **NOT** exempt from the material covered during the class period(s) the student misses. The instructor is **NOT** responsible for assisting the student to catch up on class material when the student is absent from class.

Exams

- I plan to give three exams during the semester with no final exam.
- Make-up exams are not given, so do not ask. If you miss an exam, you receive a zero for that exam.

- All exams are offered on the regularly scheduled test day and are online. The window of opportunity is extended into the evenings for those who work during the day.
- Calculators may be required during the exams. You may use the classroom PCs for the Lindo/Lingo software, or the calculator. IM'ing, cell phones, I-phones, PDA's or any other electronic communication devices are not permitted.

Extra Credit

You can earn up to **+3 %s on your final average** (better than applying 3% to one exam) by choosing one of the several options presented below:

1. Write a one-page summary of an article describing an application of operations research.
2. Write a one-page summary of a current job posting for a job relating to Operations Research and/or Management Science. Do not just cut/paste the job.
3. A brief written interview of someone you know working in the field of operations research. Include the person's name and contact information.

Extra credit work must be turned in by the last day of class.

Grading Policy

Component	Points	Weights
Online Exam #1	100	33.3%
Online Exam #2	100	33.3%
Online Exam #3	100	33.3%
Total	300	100%

There are Practice Exams posted within the Modules for you to practice or study with before taking exams. Grades will be posted within one (1) week of test date. Grade calculation: There are 3 exams totaling 100%. There will be no optional final exam. Use Extra Credit to improve your average.

Disruptive Behavior and Academic Dishonesty

SPSU has an Honor Code and a new procedure relating to when academic misconduct is alleged. All students should be aware of them. Information about the Honor Code and the misconduct procedure may be found at <http://spsu.edu/honorcode/>.

Disability Statement

"A student at Southern Polytechnic State University who has a disabling condition and needs academic accommodations has a responsibility to voluntarily identify him/herself as having a disability by scheduling an appointment with the Disability Services Coordinator as soon as possible." (SPSU Catalog). Contact the Coordinator as follows: Kalisha Thomas, 678-915-7244, Building J, Room 253, kthomas2@spsu.edu.

Professional Behavior

All students are expected to abide by the professional ethical behavior standards published in the SPSU catalog.