

## **Decision Support Systems**

ESI 4356 Section 1763

**Class Periods:** MW 1-2 (7:25 -9:20 am)

**Location:** LIT 113

**Academic Term:** Spring 2017

### **Instructor:**

Cristina R. Galloway

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352-294-7732

Office Hours: Fridays 10 am to 12 pm, 415A Weil Hall

### **Teaching Assistant:**

Farnaz Babaie Sarijaloo

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### **Grader:**

Will be posted on the course E-learning site

### **Course Description**

*Credits: 4;* Applications of decision support systems in industrial and systems engineering; Developing and implementing decision support systems arising in industrial and systems engineering using popular database management and spreadsheet software; Microsoft Excel; Visual Basic for Excel.

### **Course Pre-Requisites**

COP 2271 (or equivalent) and ESI 4312 with minimum grades of C.

### **Course Objectives**

The objectives of the course are to

- understand the usefulness of decision support systems arising in the practice of industrial and systems engineering
- become expert users of spreadsheets and to learn how to take advantage of a large array of tools available in spreadsheet programs
- learn how to accomplish tasks programmatically in a spreadsheet and how to design user friendly graphical user interfaces
- understand the issues that arise in the conceptual development and implementation of effective and user friendly decision support systems
- design, develop, and implement integrated decision support systems for industrial and systems engineering applications

### **Professional Component (ABET):**

This is a course with design and analytical content. Throughout the semester, students will complete a project expected to meet specific design criteria. The project helps students cultivate project management and planning skills as part of their professional development.

**Relation to Program Outcomes (ABET):**

<b>Outcome</b>	<b>Coverage*</b>
a. Apply knowledge	High
b1. Conduct experiments	
b2. Statistical design of experiments	
c. Design	High
d. Function on teams	Medium
e. Solve problems	Medium
f. Professional and ethical responsibility	
g. Communicate	Medium
h1. Economic impact	
h2. Global, societal, and environmental impact	
i. Lifelong learning	
j. Contemporary issues	
k. Techniques, skills, and tools for degree program	High

\*Coverage is given as high, medium, or low. An empty box indicates that this outcome is not part of the course.

**Textbook, Hardware and Software**

- Recommended Textbook: “Developing Spreadsheet-Based Decision Support Systems,” 2nd edition
  - Authors: Michelle MH Seref, Ravindra K Ahuja, Wayne L Winston.
  - ISBN: 978-0-9759146-8-7
- You must have a laptop for this course
  - The laptop is necessary for the in-class exercises, exams, and group project
  - If the laptop’s battery does not last long enough for a two-hour exam, an extension cord and a multiplug is strongly recommended since seats will be assigned for exams
- Software: MS Excel, 2010 or later version

**Tentative Course Schedule**

<b>Week</b>	<b>Topic</b>
1	Introduction
2	Functions and Formulas & Charts and Pivot Tables
3	MLK Holiday & Statistical Analysis
4	Excel Solver & Exam-1
5	VBA Objects & Procedures & Flow Control
6	Data Structures
7	Exam-2 & Developing Object Classes
8	Developing Object Classes
9	User Interface Design
10	Spring Break
11	Principles of Decision Support Systems
12	Exam-3 & Project Meeting 1
13	Project Work
14	Project Meeting 2 & Project Work
15	Project Work
16	Project Deadline & Presentations

## **Exams**

Exams will be given at 8:20 pm on scheduled days. There will be no class during the scheduled class time that day.

## **Grade Concern Policy**

Grading concerns will have the following process:

1. Within 10 days of the grades being released, email the professor for a personal grade breakdown by question
2. If you still have concerns after reviewing, then you can either come to next office hours where we can discuss the grade breakdown or discuss through email

Only the professor can change the grades, so the TA and grader will not be involved in the grade review process. No concerns will be evaluated after the 10-day cutoff.

## **Attendance**

Attendance is not required, though you are expected to be aware of all announcements made in class and know all previously covered material when you attend the following class. Attendance is not mandatory. However, it is your responsibility to keep up with the class updates. You will be responsible for everything covered in class even if it is not in the textbook. Attending students will be asked to participate in class exercises.

## **Make-Up Policy**

In general, there will be no makeup exams given. However, students needing a makeup exam, or special accommodation have to inform the instructor at least one week before the date of the exam. Exceptions will be made for medical emergencies or other extraordinary circumstances.

## **Evaluation of Grades**

<b>Assignment</b>	<b>Percentage of Final Grade</b>
Exam 1	25%
Exam 2	25%
Exam 3	25%
Group Project	25%
<i>Total</i>	<i>100%</i>

## **Grading Policy**

<b>Grade</b>	<b>Range</b>	<b>Grade Points</b>
A	93-100	4.00
A-	90-92	3.67
B+	87-89	3.33
B	83-86	3.00
B-	80-82	2.67
C+	77-79	2.33
C	73-76	2.00
C-	70-72	1.67
D+	67-69	1.33
D	63-66	1.00
D-	60-62	0.67

\*The weighted average will be rounded to the nearest integer.

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### ***Students Requiring Accommodations***

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***University Honesty Policy***

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Software Use***

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:

<http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

### ***Campus Resources:***

#### *Health and Wellness*

#### **U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

#### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.  
<https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.  
<https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers.  
<https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus:** [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.