

## Course Syllabus

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### ESI 4356 –Decision Support Systems for Industrial and Systems Engineers

**Instructor:** Dr. Konstantinos Gakis, [kgakis@ufl.edu](mailto:kgakis@ufl.edu), Weil 401C.

## THE COURSE

### Catalog Description

Applications of decision support systems: developing and implementing systems arising in industrial and systems engineering using popular database management and spreadsheet software.

**Credits: 3**

### Prerequisites

**COP 2271 and ESI 4312 with minimum grades of C.**

### Course Objectives

The objectives of the course are to:

1. demonstrate to students the usefulness of decision support systems arising in the practice of industrial and systems engineering;
2. enable students to design, develop, and implement decision support systems for engineering applications using latest available IT tools.

### Contribution of the Course to Meeting the Professional Component

This is a course with design content. Throughout the semester, students will complete a project expected to meet specific design criteria.

### Textbook and Software Requirements

**Textbook:** “Developing Spreadsheet-Based Decision Support Systems”

**Authors:** Michelle MH Seref, Ravindra K Ahuja, Wayne L Winston.

**Software:** MS Excel, preferably 2010 or later version.

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## Class Material and Announcements

Lecture notes, assignments, practice exercises, review sheets, and extra information are all going to be available to you on the class website at CANVAS. The assignment submission system can be reached at the tab Assignments.

## SEMESTER PLAN

### Class Hours and Location

Wednesdays and Fridays, periods 4-5 i.e. 10:40 am ÷ 12:35 pm at **RNK 0110**. The final exam is scheduled for Wednesday, April 29, at 15:00 ÷ 17:00.

### Office Hours

Initially scheduled (tentatively) for Thursdays 10:00 ÷ noon. Additional office hours will be announced. All office hours will be taking place at **Weil 202**.

### Attendance and Expectations

Attendance is **not mandatory**. However, it is your responsibility to keep up with the class updates (material to be taught, homework, exams, etc.). Attendance may be taken in class, but only for statistical reasons. Attendance records will not affect your class grade. You will be responsible for everything covered in class even if it is not in the textbook. Attending students may be asked to participate in class exercises.

Lectures are there to facilitate efficient learning. Students that behave inappropriately will be asked to leave. If you feel like you cannot follow the lecture anymore, you can leave the classroom quietly; I will not be offended. **Please remember to turn off your cell phones as soon as you enter the classroom.**

### Course Outline

The course outline is offered as a guide. This means that it is subject to change, depending on the pace of the class. The instructor might choose to cover parts of the curriculum more extensively, or give extensions on project deadlines.

**The dates of the exams and the projects might be subject to change depending on the progress of the class.**

Week No.	From:	To:	General Calendar	Lesson
1	1/5/2015	1/9/2015	Classes begin: 1/6	Introduction to DSS
2	1/12/2015	1/16/2015		Excel Basics, Formatting, Referencing and Names, Functions and Formulas, Charts
3	1/19/2015	1/23/2015	M. L. King, Jr.'s Birthday: 1/19	Pivot Tables, Statistical Analysis
4	1/26/2015	1/30/2015		The Solver and other tools
5	2/2/2015	2/6/2015		Intro to VBA, Recording Macros, Objects and Variables
6	2/9/2015	2/13/2015		Review & Exam-1
7	2/16/2015	2/20/2015		Structures, Subroutines, Functions and Arrays
8	2/23/2015	2/27/2015		User Interface & DSS Development Process, GUI Design
9	3/2/2015	3/6/2015	Spring Break	
10	3/9/2015	3/13/2015		ActiveX controls & drawing objects
11	3/16/2015	3/20/2015		VBA Applications
12	3/23/2015	3/27/2015		VBA Data Operations
13	3/30/2015	4/3/2015		Review & Exam-2
14	4/6/2015	4/10/2015	Drop Deadline: 4/10	Secure Applications & Project Presentation
15	4/13/2015	4/17/2015		Project Meeting
			Classes end: 4/22	
			Reading days: 4/23 & 24	
16	4/20/2015	4/24/2015	Final exams start: 4/25	Project Meeting & Project Submission
17	4/27/2015	5/1/2015	Final Exams	Presentations , April 29, at 15:00 ÷ 17:00

## COURSE POLICIES

### Exams, Assignments & Grading Policy

All assignments must be submitted via Canvas unless specified otherwise. Assignment deadlines are rigid. If you do not submit before the deadline or submit the wrong file, you may receive a zero. **Only the instructor has the authority to grant late submissions.**

Your grade will be based on two in-class exams, four & a 'bonus' homework assignments and a term project. Homework assignments and exams may be weighted unequally. Your grade will be calculated as follows:

Exams	50%
Homework & exercises	25%
Term project	25%
<b>Total</b>	<b>100%</b>

### Grading Scale

<b>A</b>	$\geq 93$
<b>A-</b>	[91, 93)
<b>B+</b>	[88, 91)
<b>B</b>	[83, 88)
<b>B-</b>	[81, 83)
<b>C+</b>	[78, 81)
<b>C</b>	[73, 78)
<b>C-</b>	[71, 73)
<b>D+</b>	[68, 71)
<b>D</b>	[63, 68)
<b>D-</b>	[58, 63)
<b>E(F)</b>	$< 58$

A C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better).

**Note:** a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

### Makeup Exam Policy

Students needing a makeup exam, or special accommodation have to inform the instructor at least one week before the date of the exam. **Please do not ask for a make-**

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**up exam to attend a job interview.** Exceptions will be made for medical emergencies or other extraordinary occasions.

Under no circumstances students should expect an arrangement that will not require their physical presence to an examination.

### **Term Project Guidelines**

Each student will work a term-project individually. Students are expected to be present in project meetings. Failure to attend most of these meetings may result in a penalty reflected in their project grades. Project development will take place in stages with specific deadlines.

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## GENERAL STUDENT MATTERS

### Honesty Policy

All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

### Accommodation for Students with Disabilities

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

### UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling.
- SHCC Mental Health, Student Health Care Center, 392-1171, Personal and Counseling.
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

### Software Use

All faculty, staff and student 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.

Let's all have a great semester!

-Konstantinos Gakis