

Course Syllabus

ESI 4356 –Decision Support Systems for Industrial and Systems Engineers

Instructor: Dr. Konstantinos Gakis, kgakis@ufl.edu

Assistant: TBA

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.

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

Section	Days	Periods	Building & Room	Final Exam
07DA	Tuesday & Thursday	3-4 (9:35 – 11:30 am)	MAEB 0229	Monday 12/14/2015 7:30 a.m. - 9:30 a.m.
2499	Tuesday & Thursday	6-7 (12:50 – 2:45 pm)	WEIM 1094	Monday 12/14/2015 5:30 p.m. - 7:30 p.m.

Office Hours

Fridays, 2-4pm. All office hours will be taking place at **Weil 202**.

Homework Assignment Plan

No.	Homework Assignment Topic
1	Spreadsheet Functions
2	Data Operations & Analysis and Solver
3	Macros, VBA spreadsheet commands and simple controls
4	VBA structures, procedures and arrays
5	VBA navigation, forms, ActiveX controls and objects

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 to deadlines.

The dates of the exams, homework assignments and the project might be subject to change depending on the progress of the class.

Document:	Semester:	Course ID:	Description:	Section:
Course Syllabus	Fall 2015	ESI 4356	DSS for ISE	07DA, 2499

Week No.	From:	To:	General Calendar	Lesson
1	8/25/2015	8/27/2015	Drop/Add	Introduction to DSS Excel Basics, Formatting, Referencing and Names,
2	9/1/2015	9/3/2015	Labor Day: 9/7	Functions and Formulas, Charts
3	9/8/2015	9/10/2015		Pivot Tables, Statistical Analysis
4	9/15/2015	9/17/2015		The Solver and other tools
5	9/22/2015	9/24/2015		Review & Exam-1
6	9/29/2015	10/1/2015		Intro to VBA, Recording Macros, Objects and Variables
7	10/6/2015	10/8/2015		Structures, Subroutines, Functions
8	10/13/2015	10/15/2015		Arrays
9	10/20/2015	10/22/2015		User Interface & DSS Development Process
10	10/27/2015	10/29/2015		GUI Design
11	11/3/2015	11/5/2015	Homecoming: 11/6-7	Programming Principles & Review
12	11/10/2015	11/12/2015	Veteran's Day: 11/11	Exam-2 & Project Assignment
13	11/17/2015	11/19/2015		Case Studies
14	11/24/2015	11/26/2015	Last Day to Drop: 11/23 25 & 26 Thanksgiving	Project Discussion
15	12/1/2015	12/3/2015		Project Discussion & submission
16	12/8/2015		Classes End December 9	Acceptance testing & in class presentations
17				Final Project Submission (due at the scheduled final exam date)

COURSE POLICIES

Grades

Your grade will be based on two in-class exams, four & a 'bonus' homework assignments (meaning that the lowest grade homework assignment will not count towards your final grade) 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%
Total	100%

Grading Scale

A	≥ 93
A-	[90, 93)
B+	[87, 90)
B	[83, 87)
B-	[80, 83)
C+	[77, 80)
C	[73, 77)
C-	[70, 73)
D+	[67, 70)
D	[63, 67)
D-	[60, 63)
E(F)	<60

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

Document:	Semester:	Course ID:	Description:	Section:
Course Syllabus	Fall 2015	ESI 4356	DSS for ISE	07DA, 2499

Grade Adjustments/Curving

Curving/grade adjustments may be made depending jointly on two factors: max score and score median being less than A- and C- respectively.

Re-grading Policy

A request from students to have their exams, assignments or projects regarded, *may* result in loss of points.

Attendance

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Attendance is **not mandatory**. However, it is your responsibility to keep up with the class updates (material to be taught, homework, exams, etc.). 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. Attendance may be taken in class, but only for statistical reasons. Attendance records will not affect your class grade.

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.**

Exam Policy

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

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

Homework Assignments

All homework assignments must be submitted via the Course's website in the specified system unless specified otherwise. Submission of links to outside or cloud files does not constitute submission.

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.**

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Course Syllabus	Fall 2015	ESI 4356	DSS for ISE	07DA, 2499

Project Guidelines

Each student will work a project individually. Students are expected to be present and participate in project meetings. Failure to attend most of these meetings *may* reflect in project grades. Project development will take place in stages.

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>. 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/>.

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.

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** (<http://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.

Accommodation for Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (tel. 352-392-8565, 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.

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Course Syllabus	Fall 2015	ESI 4356	DSS for ISE	07DA, 2499

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: <http://www.counseling.ufl.edu/cwc/Default.aspx>.
- 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.
- University Police Department: 392-1111 or 9-1-1 for emergencies

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