

QFO-AP-FI-MO02	اسم النموذج: Course Syllabus	<p style="text-align: right;">جامعة فيلادلفيا</p>  <p style="text-align: center;">Philadelphia University</p>
رقم الاصدار : 1 ( Revision)	الجهة المصدرة: كلية تكنولوجيا المعلومات	
التاريخ: 2017/11/05	الجهة المدققة: عمادة التطوير والجودة	
عدد صفحات النموذج:		

<b>Course Title: Decision Support Systems</b>	<b>Course code: 731330</b>
<b>Course Level: 4</b>	<b>Course prerequisite: 731332+732361</b>
<b>Lecture Time: 2:15-3:45</b>	<b>Credit hours: 3</b>
<b>Location: 7404</b>	<b>Contact Hours: Sun-Tus-Thu: 11-12</b>

#### Academic Staff Specifics

Name	Rank	Office No. and Location	O/H	E-mail Address
Ola A.Younis	Lecturer	333 IT Building	12-2	Ola_younes18@yahoo.com

#### Course description:

This module provides a foundation for teaching the subject of decision support systems (DSSs) from a cognitive processes and decision-making perspective. The content emphasize managerial applications and the implication of decision support technologies on those issues. This course place strong emphasis on helping the student thoroughly understand the “support” aspect of a DSS. The coverage of decision making and cognitive processes includes such topics as models of decision making, biases and heuristics, decision strategies, simulation, and discovery.

#### Course objectives:

1. To provide students with the main concepts of Decision Support System (DSS) and management sciences
2. To study the components of DSS and the main players who participate in the decision process
3. To study management science models especially linear and integer programming, network and decision tree
4. To explain key areas contributing to DSS such as knowledge acquisition, expert system and knowledge base systems
5. To study group decision support and groupware technologies within organizations

#### Course/ resources

##### □ Books

1. Decision Support Systems (2nd Edition), George M. Marakas, Prentice Hall; 2 edition (September 2, 2002).
1. Applied Management Science (2<sup>nd</sup> Edition), John A. Lawrence & Jr and Barry A. Pasternack ,John Wiley & sons Inc, 2002.



**Teaching methods:**

*Duration: 16 weeks, 48 hours in total*

*Lectures: 3 per week*

*Tutorials: Approximately 1 per week*

*Assignments: 1 Assignment, 5 Quizzes*

**Learning outcomes:**

**Knowledge and understanding**

1. The student should be able to identify the role of information systems in DSSs.
2. The students should be able to explain the role of managers and individuals in the process of deriving decisions within IT organizations.

**Cognitive skills**

1. The students should be able to design and formulate management problems using DSSs models.
2. The students should be able to apply linear and integer programming techniques for scheduling and optimization problems that require decision making using MSEXCEL.
3. The students should be able to utilise statistical tools, and AI techniques especially knowledge base and expert system techniques related to DSSs.

**Communication skills**

1. The student should be able to demonstrate his ability to design computer-based decision support systems and design appropriate solutions for different problems.

**Assessment instruments**

Allocation of Marks	
Assessment Instruments	Mark
First examination	20%
Second examination	20%
Final examination: 50 marks	40
<input type="checkbox"/> Assignment/ Seminar/ Project/ Quizzes/ tutorial.	20
<input type="checkbox"/> Class activities	
Total	100

**Documentation and academic honesty**

Submit your home work covered with a sheet containing your name, number, course title and number, and type and number of the home work (e.g. tutorial, assignment).

Any completed homework must be handed in to my office by 15:00 on the due date. After the deadline “zero” will be awarded. You must keep a duplicate copy of your work because it may be needed while the original is being marked.

**Documentation Style**

For the research report, you are required to write a report similar to a research paper. It should include:

- **Abstract:** It describes the main synopsis of your paper.
- **Introduction:** It provides background information necessary to understand the research and getting readers interested in your subject. The introduction is where you put your problem in context and is likely where the bulk of your sources will appear.
- **Methods (Algorithms and Implementation):** Describe your methods here. Summarize the algorithms generally, highlight features relevant to your project, and refer readers to your references for further details.
- **Results and Discussion (Benchmarking and Analysis):** This section is the most important part of your paper. It is here that you demonstrate the work you have accomplished on this project and explain its significance. The quality of your analysis will impact your final grade more than any other component on the paper. You should therefore plan to spend the bulk of your project time not just gathering data, but determining what it ultimately means and deciding how best to showcase these findings.
- **Conclusion:** The conclusion should give your reader the points to “take home” from your paper. It should state clearly what your results demonstrate about the problem you were tackling in the paper. It should also generalize your findings, putting them into a useful context that can be built upon. All generalizations should be supported by your data, however; the discussion should prove these points, so that when the reader gets to the conclusion, the statements are logical and seem self-evident.
- **Bibliography:** Refer to any reference that you used in your assignment. Citations in the body of the paper should refer to a bibliography at the end of the paper.

#### □ **Protection by Copyright**

1. Coursework, reports, and essays submitted for assessment must be your own work, unless in the case of group projects a joint effort is expected and is indicated as such.
2. Use of quotations or data from the work of others is entirely acceptable, and is often very valuable provided that the source of the quotation or data is given. Failure to provide a source or put quotation marks around material that is taken from elsewhere gives the appearance that the comments are ostensibly your own. When quoting word-for-word from the work of another person quotation marks or indenting (setting the quotation in from the margin) must be used and the source of the quoted material must be acknowledged.
3. Sources of quotations used should be listed in full in a bibliography at the end of your piece of work.

#### □ **Avoiding plagiarism.**

1. Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports or journal articles.
2. Paraphrasing, when the original statement is still identifiable and has no acknowledgement, is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.
3. Direct quotations from an earlier piece of your own work, if not attributed, suggest that your work is original, when in fact it is not. The direct copying of one's own writings

qualifies as plagiarism if the fact that the work has been or is to be presented elsewhere is not acknowledged.

4. Plagiarism is a serious offence and will always result in imposition of a penalty. In deciding upon the penalty the Department will take into account factors such as the year of study, the extent and proportion of the work that has been plagiarized, and the apparent intent of the student. The penalties that can be imposed range from a minimum of a zero mark for the work (without allowing resubmission) through caution to disciplinary measures (such as suspension or expulsion).

### **Course/module academic calendar**

<b>W#</b>	<b>Basic and support material to be covered</b>
1.	General Introduction of DSSs
2.	DSS process and components
3.	Decision and decision makers
4.	Decision Theory and simple models
5.	Decision in organisations
6.	Modelling decision process
7.	International Decision Support Systems 1 <sup>st</sup> exam
8.	Designing A Decision Support System
9.	Object-Oriented Technologies And Dss Design
10	Implementation And Evaluation
11	Group Decision Support Systems
12	Introduction to Simulation
13	Discrete Event Simulation as a DSS application
14	Introduction to Intelligent Systems
15	Rule based Expert Systems
16	Review
17	C/W and H/w finalization. <b>Final Exam</b>

### **Expected workload:**

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial

### **Attendance policy:**

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

### **Module references**

#### **Books**

1. Turban, E., Aronson, Liang. (2005). Decision Support Systems and Intelligent Systems. 7th edition, Prentice Hall.
2. John A. Lawrence, Jr and Barry A. Pasternack (2002) Applied Management Science. 2<sup>nd</sup> Edition, John Wiley & sons Inc.

#### **Journals**

**Websites**

[www.brint.com](http://www.brint.com)