# Faculty of Computers & Information Technology

## Decision Support Systems

**Information :**

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| **Course Code :** | ISY 433 | **Level** | **:** Undergraduate | **Course Hours :** | 3.00- Hours |

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| **Department :** | Department of Information Systems |

**Instructor Information :**

| Title | Name | Office hours |
|---|---|---|
| Professor | Ayman El Sayed Khedr | 2 |
| Associate Professor | AMIRA MOHAMMED IBRAHIM IDREES | |
| Assistant Lecturer | Mohamed Attia Mohamed | 1 |
| Teaching Assistant | Maha Farghaly Ali Ahmed | 1 |

**Area Of Study :**

This course covers the following topics: Introduction to decision support systems; DSS components; Decision making and DSS; DSS software and hardware; developing DSS; DSS models; types of DSS; group DSS; executive information systems; data mining; artificial intelligence and expert systems.

Course Goals:

The course is devoted to introduce decision support systems; show their relationship to other computer-based information systems, demonstrate DSS development approaches, and show students how to utilize DSS capacities to support different types of decisions

**Description :**

Problem solving, decision-making process, model building, types of computer based information systems Approaches and techniques to construct and implement an effective computer-based Decision Support Systems (DSS). Alternative software development tools or generators of a DSS. The role of computational tools (simulation, optimization, statistical and other quantitative models) and computer information systems (MIS, AI and ES) to support and enhance the capability of the DSS. Discussion and analysis of real life case studies of integrated DSS is stressed throughout the course.

**Course outcomes :**

**a.Knowledge and Understanding: :**

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| 1 - | Be able to understand the importance of decisions in the work and the life |
| 2 - | Be able to use DSS Software Tools |
| 3 - | Understand how to Evaluating the Success/Failure of Decision Support Systems |

**b.Intellectual Skills: :**

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| 1 - | Discuss the advangates/disadvantages of different Types of decision support systems |
| 2 - | Analyze  practical cases  from the life for different problems (technical ,  management) |

| 3 - | Design models ,solutions and alternative choices reports decision makers |
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**c.Professional and Practical Skills: :**

| 1 - | DSS software tools. |
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| 2 - | Database language |
| 3 - | Statistical software tools |

**d.General and Transferable Skills: :**

| 1 - | Work in a group inorder to analyze ,design , create a solutions for a technical problems in one report |
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| 2 - | Work with other groups in order to make different decisions and GDSS |

**Course Topic And Contents :**

| Topic | No. of hours | Lecture | Tutorial / Practical |
|---|---|---|---|
| Decision Making and Computer Support : An overview | 3 | 2 | 2 |
| Management Support Systems | 3 | 2 | 2 |
| Decision Making Systems, Modeling and Support | 6 | 4 | 4 |
| Decision Support Systems: An overview | 6 | 4 | 4 |
| Data Warehousing, Access, Analysis, etc | 6 | 4 | 4 |
| Modeling and Analysis | 6 | 4 | 4 |
| Decision Support Systems Development | 3 | 2 | 2 |
| Collaborative Computing Technologies | 3 | 2 | 2 |

**Teaching And Learning Methodologies :**

• Lectures

• Exercises

• Lab Work

• Cases

**Course Assessment :**

| Methods of assessment | Relative weight % | Week No | Assess What |
|---|---|---|---|
| Assignments | 15.00 | 3 | |
| Class Discussion and Presentation | 15.00 | 3 | |
| Final-term Examination | 40.00 | 15 | |
| Midterm 1 | 15.00 | 6 | |
| Midterm 2 | 15.00 | 12 | |

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