Syrian Arab Republic		الجمهورية العربية السورية
Ministry of Higher Education	SVU	وزارة التعليم العاليي
Syrian Virtual University	الجامعــة الإفتراضيــة السوريــة Syrian Virtual University	الجامعة الافتراضية السورية

# **Course Description: System Analysis and Design**

#### 1- Basic Information:

Course Name	Systems Analysis and Design
Course ID	IS
<b>Contact Hours (Registered Sessions)</b>	16
<b>Contact Hours (Synchronized Sessions)</b>	16
Mid Term Exam	
Exam	75 min
Registered Sessions Work Load	16
Synchronized Session Work Load	16
Credit Hours	3

#### 2- Pre-Requisites:

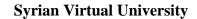
Course	ID
Data Bases	DB

#### 3- Course General Objectives:

The course aims at teaching the students the basics of systems analysis and design. The process starts from requirements determination until designing the system. Students acquire a range of techniques and tools for these stages, and study a range of methodologies, from traditional methodologies to object-oriented methodologies, and focusing on the use of UML.

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### 4- Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes
ILO1	Definition of the Systems Development Life Cycle (SDLC)
ILO2	Determine the system's business requirements
ILO3	Business Process Modeling
	Understanding the structure of a complete system consisting of a set of physical
ILO4	components, equipment, software and people and communication between them to
	achieve the requirements of the system
ILO5	Learn how to choose design strategies
ILO6	Learn how to move from logical flow chart to physical data flow chart
	Understanding how to analyze and design concept based systems and object-
ILO7	oriented technologies that view the system as a set of self-contained objects that
	include both data and procedures at the same time
ILO8	

- 5- Course Syllabus (18 hours of total synchronized sessions; 18 hours of total Recorded Sessions)
  - RS: Recorded Sessions; SS: Synchronized Sessions;

ILO	Course Syllabus	RS	SS	Type	Additional Notes
ILO1	The Systems Development Life Cycle (SDLC): planning, analysis, design, and implementation. As well as methodologies of analysis and design.			✓ Exercises  □ Assignments □ Seminars □ Projects □ Practices □ Others	
ILO2	Requirements Determination: functional and non-functional requirements.			<ul><li>✓ Exercises</li><li>□ Assignments</li><li>□ Seminars</li><li>□ Projects</li><li>□ Practices</li><li>□ Others</li></ul>	
ILO3	Business process modeling: use cases, and			✓ Exercises ✓ Assignments	

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data flow charts.	
□ Projects	
□ Practices	
□ Others	
✓ Exercises	
Maring into design.	
Moving into design: physical components,  □ Seminars □ Seminars	
equipment, and software	
□ Practices	
□ Others	
✓ Exercises	
→ Assignments	
Design strategies: customized design	
ILO5 customized design packages, outsource. □ Semmars □ Projects	
packages, outsource. □ Practices	
□ Others	
✓ Exercises	
✓ Assignments	
Moving from logical flow    Seminars	
ILO6   chart to physical data	
□ Practices	
□ Others	
object-oriented ✓ Exercises	
methodology: view the ✓ Assignments	
system as a set of self.	
contained objects that	
include both data and	
process at the same time	

# 6- Assessment Criteria (Related to ILOs)

ISC	Interactive Synchronized Collaboration	Ex	Exams		Rpt	Reports	
PF2F	Presentations and Face-to-Face Assessments	PW	Practice Wo	rk			

по				Asse	ssment	Туре	
ILO Code	ILO	<b>Intended Results</b>	ISC	PW	Ex	PF2F	Rpt

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ILO1	Definition of the Systems Development Life Cycle (SDLC)	✓	✓	✓
ILO2	Determine the system's business requirements	<b>✓</b>	<b>✓</b>	<b>✓</b>
ILO3	Business Process Modeling	✓	✓	✓
ILO4	Understanding the structure of a complete system consisting of a set of physical components, equipment, software and people and communication between them to achieve the requirements of the system	<b>√</b>	<b>✓</b>	✓
ILO5	Learn how to choose design strategies	✓	<b>✓</b>	✓
ILO6	Learn how to move from logical flow chart to physical data flow chart	<b>√</b>	<b>√</b>	<b>✓</b>
ILO7	Understanding how to analyze and design concept based systems and object-oriented technologies that view the system as a set of self-contained objects that include both data and procedures at the same time	<b>✓</b>	<b>✓</b>	<b>✓</b>

### **7-Practice Tools:**

Tool Name	Description
Course Name	

### 8-Main References

Dennis, Wixom, Roth, Systems Analysis and Design (SAD), 5 <sup>th</sup> edition, 2009