

Syrian Arab Republic	 الجامعة الافتراضية السورية SYRIAN VIRTUAL UNIVERSITY	الجمهورية العربية السورية
Ministry of Higher Education		وزارة التعليم العالي
Syrian Virtual University		الجامعة الافتراضية السورية

Course Description: **Logic Programming**

1- Basic Information:

Course Name	Logic Programming
Course ID	lp
Contact Hours (Registered Sessions)	16
Contact Hours (Synchronized Sessions)	16
Mid Term Exam	-
Exam	75 min
Registered Sessions Work Load	16
Synchronized Session Work Load	16
Credit Hours	4

2- Pre-Requisites:

Course	ID
None	

3- Course General Objectives:

This course covers logic programming paradigm and Prolog language. It discusses the construction of clause and the semantics of Prolog language, the Prolog interpreter and different applications of Prolog. Specifically, the course presents the use of Prolog in Databases and in solving Artificial Intelligence Problems.

4- Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes
ILO1	Acquiring Theoretical Knowledge of Logic Programming basics
ILO2	Acquiring the ability to analyze problems related to logic programming
ILO3	Acquiring practical skills related to using LP in different fields
ILO4	Ability to continuous learning in this field and self-development

5- Course Syllabus (18 hours of total synchronized sessions; 18 hours of total Recorded Sessions)

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- **RS:** Recorded Sessions; **SS:** Synchronized Sessions;

ILO	Course Syllabus	RS	SS	Type	Additional Notes
ILO1	Intro.to LP and Prolog Declarative Programming: Facts and Rules in Prolog. Predicate Programming in Prolog.			<input type="checkbox"/> Exercises	
ILO2	Abstract machine model: Linear Strategy in solving Problems.			<input type="checkbox"/> Exercises	
ILO3	<ul style="list-style-type: none"> • Built-in and I/O predicates • Mathematical Calculations, lists in Prolog • Prolog application in AI 			<input type="checkbox"/> Exercises <input type="checkbox"/> Practices	
ILO4	Students select a subject and given an project to apply what he/she learned			<input type="checkbox"/> Assignments <input type="checkbox"/> Projects	

6- Assessment Criteria (Related to ILOs)

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

ILO Code	ILO	Intended Results	Assessment Type				
			ISC	PW	Ex	PF2F	Rpt
ILO1	Acquiring Theoretical Knowledge of Logic Programming basics		✓	✓	✓		
ILO2	Acquiring the ability to analyze problems related to logic		✓	✓	✓		

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	programming						
ILO3	Acquiring practical skills related to using LP in different fields		✓	✓	✓		
ILO4	Ability to continuous learning in this field and self-development		✓				✓

7-Practice Tools:

Tool Name	Description
SW-Prolog program	IDE for developing prolog programs

8-Main References

Uploaded pdf files on Moodle system

9-Additional References

The Art of Prolog, 2nd edition by Leon Sterling and Ehud Shapiro. Cambridge, Massachusetts: MIT Press, 1994. 509 page.

<http://www.learnprolognow.org/>

<http://www.swi-prolog.org/>