Syrian Arab Republic		الجمهورية العربية السورية
Ministry of Higher Education		وزارة التعليم العالــــي
Syrian Virtual University		الجامعة الافتراضية السورية

Course Definition:

1- Basic Information:

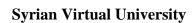| Course Name	Compiler
Course ID	CMP
Contact Hours (Registered Sessions)	
Contact Hours (Synchronized Sessions)	16 sessions
Mid Term Exam	3
Exam	3
Registered Sessions Work Load	
Synchronized Session Work Load	64
Credit Hours	5

2- Pre-Requisites:

Course	ID
Object Oriented Programming	OOP
Automata	

3- Course General Objectives:

1- Understand Compiler structure
2- Understand Lexical Analysis
3- Understand Syntactical Analysis
4- Understand symbol table and semantic tree
5- Understand Semantic Analysis
6- Understand Code Generation
7- Understand Code Optimization
8- Competence in Lexical tool
9- Competence in Syntactical tool

Syrian Arab Republic		الجمهورية العربية السورية
Ministry of Higher Education		وزارة التعليـم العالـــــي
Syrian Virtual University		الجامعة الافتراضية السورية

4- Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes
ILO1	Understand Compiler structure
ILO2	Understand Lexical Analysis
ILO3	Understand Syntactical Analysis
ILO4	Understand symbol table and semantic tree
ILO5	Understand Semantic Analysis
ILO6	Understand Code Generation
ILO7	Understand Code Optimization
ILO8	Competence in Lexical tool
ILO9	Competence in Syntactical tool

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

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

ILO	Course Syllabus	RS	SS	Type	Additional Notes
ILO1	Understand Compiler structure	1.5	0	assignments	-
ILO2	Summary of Automata and Understand Lexical Analysis	3	3	assignments	-
ILO3	Understand Syntactical Analysis (LL1,	6	6	assignments	-

	LR1, LSR, LALR)				
ILO4	Understand symbol table and semantic tree	1.5	1.5	assignments	-
ILO5	Understand Semantic Analysis	3	1.5	assignments	Exercises
ILO6	Understand Code Generation	4.5	0	assignments	Exercises
ILO7	Understand Code Optimization	4.5	0	assignments	Exercises

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	Understand Compiler structure		✓	✓	✓		
ILO2	Summary of Automata and Understand Lexical Analysis		✓	✓	✓		
ILO3	Understand Syntactical Analysis (LL1, LR1, LSR, LALR)		✓	✓	✓		
ILO4	Understand symbol table and semantic tree		✓	✓	✓		
ILO5	Understand Semantic Analysis		✓	✓	✓		

	Syrian Arab Republic		الجمهورية العربية السورية
	Ministry of Higher Education		وزارة التعليم العالـــي
	Syrian Virtual University		الجامعة الافتراضية السورية

				✓			
ILO6	Understand Code Generation		✓	✓			
ILO7	Understand Code Optimization				✓		

7- Practice Tools:

Tool Name	Description
Flex	Tool to Build Lexical Analysis
Bison	Tool to Build Syntactical Analysis
DotNet/Other	Programming Tool for object oriented

8- Main References

Principles of Compiler Design – Alfred V. Aho, Jeffrey D. Ullman - 1980 9-