



# Course Weekly Outline

**Course Name: Compiler I**

<b>Course Instructor</b>					
<b>E-mail</b>					
<b>Title</b>					
<b>Course Coordinator</b>					
<b>Course Objective</b>	<p>A. Definition of how to build and design of programming languages by looking at the work of the translator techniques and how to build it</p> <p>B. Training students to design and build programming languages through the implementation of some stages of the translator in the practical side</p> <p>C. Accommodate the student how the data is stored within the memory process through simulation methods of storage</p> <p>D. Increase the possibility of student programming by giving him examples of different issues within the limits set</p>				
<b>Course Description</b>	<p>1 - To distinguish between the types of algorithms of Compiler</p> <p>2 - Determine the best algorithm for designing compiler</p> <p>3 - The language used components to convert any algorithm to the interpreter program</p> <p>4- Determine the evolution in the field of design compilers and programming languages</p> <p>5- Distinction between the types of translators by knowing the the input and output of the compiler</p> <p>6- Take collective project to design and build compiler for some simple programming languages proposed</p>				
<b>Textbook</b>	Compilers Principles, Techniques, and Tools , Aho Law, Addison Wesley				
<b>References</b>	Basics of Compiler Design, T. Mogensen, Copenhagen Uni.				
<b>Course Assessments</b>	Term Tests	Laboratory	Quizzes	Project	Final Exam
	30%	15%	5%	-	50%
<b>General Notes</b>					



## Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	First week	Introduction to Programming Languages	files	/
2	Second week	Introduction to Translators & Compilation Concepts	files	/
3	Third week	Lexical Analysis – Scanner	TokenType	/
4	Fourth week	Finite Automata	TokenType	/
5	Fifth week	Symbol Table	TokenType	/
6	Sixth week	Symbol Table	TokenType	/
7	Seventh week	Syntax Analysis – parser	Left_Recursive	/
8	Eighth week	Context Free Grammar	Left_Recursive	/
9	Ninth week	Ambiguity-Left Recursive-Left Factoring	Left_Recursive	/
10	Tenth week	First & Follow	Left_Recursive	/
11	Eleventh week	Top-Down Parsing	Left_Factoring	/
12	Twelfth week	LL(1) Grammar	Left_Factoring	/
13	Thirteenth week	Bottom – Up parsing	Left_Factoring	/
14	Fourteenth week	LR – Parsers	Left_Factoring	/
15	Fifteenth week	Semantic Analysis – Type Checking	Left_Factoring	/

**Instructor Signature:**

**Dean Signature:**