Course Weekly Outline

Course Name: Compiler II

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

University: Anbar
College: CS & IT
Department: CS and IS Departments
Stage3st
Instructor name: Sumaya A. Hamad
Academic status: Asst. Teacher
Qualification: Msc.
Place of work: College of CS & IT

Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	First week	Introduction to Back-End	First & follow	/
2	Second week	Intermediate Code Generation	First & follow	/
3	Third week	Intermediate Code Generation	First &follow	/
4	Fourth week	Code Optimization Concepts	First &follow	/
5	Fifth week	Local Optimization	Predicative parser	/
6	Sixth week	Data – Flow Analysis	Predicative parser	/
7	Seventh week	Global Optimization	Predicative parser	/
8	Eighth week	Code Generation	Predicative parser	/
9	Ninth week	Code Generation	Predicative parser	/
10	Tenth week	Optimization during Code Generation	Bottom-up	/
11	Eleventh week	Assembler & Loader – Linker Editor	Bottom-up	/
12	Twelfth week	Decompiler concepts	Shift reduce parser	/
13	Thirteenth week	Decompiler concepts	Shift reduce parser	/
14	Fourteenth week	Compiler of Object Oriented Language	Shift reduce parser	/
15	Fifteenth week	Debugging concepts	Shift reduce parser	/

Instructor Signature: **Dean Signature:**