

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Republic of Iraq  
The Ministry Of Higher  
Education  
& Scientific Research



**University:** Baghdad  
**College:** Science for women  
**Department:** computer science  
**Stage:** Second stage  
**Lecturer name:** Amal Sufayh  
**Qualification:** M.Sc. in Computer  
Science  
**Place of work:** college of Science  
for women/ computer science

## Syllabus Form

Instructor Name	Amal Sufayh				
E-mail	Amalsa_comp@csw.uobaghadad.edu.iq				
Course Title	Computation Theory				
Course Coordinator					
Course Objectives	Teach students the basic theories of computation				
Course Description	Three main topics are presented, Finite Automata theory, context free grammars, Turing machine and Pushdown Automata Theory.				
Textbook	Introduction to Computer Theory” By Daniel I. A. Cohin, John Wiley Inc. 1986.				
References	<ol style="list-style-type: none"><li>1. The language of machine: An Introduction to Computation and formal Languages, By R.W. Floyd, Computer Science Press, 1994</li><li>2. Computation: Finite and Infinite Machines, By Marvin L. Minsky, Prentice-Hall, 1976</li></ol>				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	As(30%)	As(0%)	As(10%)	-	As(60%)
General Notes	Type here general notes regarding the course				

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## Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1		An overview of Set Theory		
2		Finite Automata (Deterministic)		
3		Regular Expressions, and Transition Graphs		
4		Kleene's Theorem		
5		Kleene's Theorem		
6		Finite Automata with Output		
7		Regular Languages		
8		Context free Grammars		
9		Regular Grammars		
10		Derivation trees		
11		Chomsky Normal Form		
12		Push Down Automata		
13		Turing Machine		
14		Complexity Theory		
15		Examination		

Instructor Signature:

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