Jordan University of Science and Technology

Faculty of Computer & Information Technology

Computer Science Department

CS317 Fundamentals Of Programming Languages

Summer Semester 2019-2020

Course Catalog
3 Credit Hours. Brief history of programming languages. Formal grammars. BNF notation. Principles of modern programming languages: features, design and evaluation. Imperative vs. declarative language styles. General-purpose language features, such as types, operators, expressions, subprograms, recursion, and object-orientation. Special purpose language features, such as support for graphical interface, concurrency, and non-determinism. Relationship between language design and implementation.

Text Book	
Title	Concepts of Programming Languages
Author(s)	Robert Sebesta
Edition	10th Edition
Short Name	Textbook
Other Information	

Instructor	
Name	**Prof. Ismail Hmeidi**
Office Location	PH4 L0
Office Hours	
Email	hmeidi@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Mon, Tue, Wed : 11:30 - 13:00 Room: منصة الكترونية

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2, 3	Preliminaries	**ch1** From **Textbook**
Weeks 3, 4, 5	Evolution of the Major Programming Languages	**ch2** From **Textbook**
Weeks 6, 7, 8	Describing Syntax and Semantics	**ch3** From **Textbook**
Weeks 9, 10, 11	Lexical and Syntax Analysis	**ch4** From **Textbook**
Weeks 12, 13, 14	Data Types	**ch6** From **Textbook**

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Be able to categorize programming languages according to their programming domain, to use an evaluation criterion to compare programming languages, to identify the main two influences of language design, and to identify and describe the details of different language implementation systems [1SO3, 1SO5]	22%	
Be able to describe the evolution and the main features of the main programming languages and their main uses [1SO3, 1SO5]	18%	
Be able to identify and use the main formal methods to describe language syntax and semantics [1SO1]	15%	
Be able to identify different methods to implement lexical and syntax analyzers and able to implement a simple lexical and syntax analyzes [1SO1]	25%	
Be able to describe the main basic datatypes and structures in programming languages [1SO1]	20%	

Relationship to Program Student Outcomes (Out of 100%)					
SO1	SO2	SO3	SO4	SO5	SO6
60		20		20	

Evaluation	
Assessment Tool	**Weight**
First	20%
Second	25%
Final	40%
Project	15%

Policy

Attendance	Attendance is very important for the course. In accordance with university policy, students missing more than 20% of total classes are subject to failure. Penalties may be assessed without regard to the student's performance. Attendance will be recorded at the beginning or end of each class
Exams	All exams will be CLOSE-BOOK; necessary algorithms/equations/relations will be supplied if required.

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