

METU
Department of Computer Engineering
CENG 242 - PROGRAMMING LANGUAGE CONCEPTS
Spring 2019

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Lecture Hours:	Section 1: Tuesday 08:40-09:30 (50 mins) BMB3 , Thursday 08:40-10:30 BMB3 (2 x 50 mins) [A. O. Akyüz] Section 2: Monday 10:40-12:30 (2 x 50 mins) BMB3 , Thursday 15:40-16:30 BMB4 (50 mins) [O. T. Şehitoğlu] Section 3: Monday 13:45-15:00 (75 mins) BMB2 , Wednesday 9:15-10:30 BMB2 (75 mins) [İ. H. Toroslu]	
Office Hours:	İ. H. Toroslu: Monday 15:00-16:00 or by appointment A. O. Akyüz: Thursday 10:40-11:30 or by appointment O. T. Şehitoğlu: Monday 9:40-10:30 or by appointment	
Catalog Description:	Evolution of programming languages. Overview of language translation, virtual machines, and run-time environments. Names, bindings and scopes. Values, expressions and types. Type compatibility and type checking. Storage, variables, and commands. Procedural abstraction. Generic units. Overview of functional programming paradigm. Overview of object-oriented programming paradigm: Encapsulation, classes and objects, inheritance, polymorphism, dynamic binding.	
Course Objective:	To introduce the basic concepts and features of programming languages and different programming paradigms.	
Prerequisite:	5710111 and 5710213	
Text Books:	<ul style="list-style-type: none"> Watt, D. A., <i>Programming Language Design Concepts</i>, Wiley, 2004. Stroustrup, B., <i>The C++ 3rd Ed.</i>, Addison Wesley Publishing Company, 1997. 	
Course Outline:	<ol style="list-style-type: none"> [12/2-15/2] Introduction (Ch. 1), Values and Types (Ch. 2) [18/2-22/2] Values and Types (Ch. 2) [25/2-01/3] Functional Programming (Ch. 14) [Haskell Lab Recitation] [04/3-08/3] Functional Programming (Ch. 14) [Haskell HW1 posted] [11/3-15/3] Storage, Variables, and Commands (Ch. 3) [18/3-22/3] Bindings and Declaration (Ch. 4) [25/3-29/3] Abstraction and Parameter Passing (Ch. 5) [Haskell HW2 posted] [01/4-05/4] Encapsulation (Ch. 6), Type Systems (Ch. 8) [MIDTERM EXAM][LAB EXAM - Haskell] [08/4-12/4] Sequencers (Ch. 9) [C++ HW1 posted] [15/4-19/4] OOP [Int. to C++, Operator Overloading] (Ch. 12) [22/4-26/4] OOP [Complex Objects and Inheritance] (Ch. 12) [C++ HW2 posted] [29/4-03/5] OOP [Templates and Exception Handling] (Ch. 12) [LAB EXAM - C++] [06/5-10/5] Logic Prg. with Prolog (Ch. 15) [Prolog HW1 posted] [Prolog Lab Recitation] [13/5-17,20/5] Logic Prg. with Prolog (Ch. 15), Syntax and Parsing [LAB EXAM - Prolog] 	
Grading:	<ul style="list-style-type: none"> Lab Quizzes (3) Midterm exam (1) Final (1) Programming Assignments (5) 	(9+9+7=25% total, closed book and notes) (25%, closed book and notes) (30%, closed book and notes) (20% total, individual work required, no collaboration)
Grading and other policies:	<ol style="list-style-type: none"> For programming assignments 10 late days can be distributed between all assignments. Each assignment cannot be submitted more than 3 days late. Makeup exams will be possible only if a legal excuse (e.g. medical report) is provided. No grouping or cooperation is allowed for the assignments or exams. Unless explicitly allowed, using code from the Internet or other sources is strictly prohibited. Cheating in an assignment will result in receiving 0 from all assignments. All academic dishonesty will be subject to disciplinary action. All exams and quizzes will be held together by all sections in evenings, dates are subject to change. This syllabus is tentative and changes can be made during the semester. 	
Newsgroup Web Page	http://cengclass.ceng.metu.edu.tr - News Forum http://ceng.metu.edu.tr/ceng242	