CS305 – Programming Languages
2023-2024 Fall
Syllabus
Version 2

Instructor
Name : Hüsnü Yenigün
Lectures : Tuesday 08:40-09:30 FMAN 1099
          Friday 16:40-18:30 FMAN 1099
Office Hours : Wednesday 19:40-20:30, Thursday 19:40-20:30 [ Online ]

TAs
Name : Mohammad Yusaf Azimi
Office Hours : Monday 14:40-16:30 [ Online ]

LAs
Name : Berke Ceylan
Office Hours : Wednesday 13:40-15:30 [ Online ]

Name : Yasin Albayrak
Office Hours : Monday 19:40-20:30, Tuesday 19:40-20:30 [ Online ]

Textbooks
[1] “Programming Languages: Concepts and Constructs” by Ravi Sethi

Note: A lecture notes document prepared based on the references above will be provided.

Grading
- Midterm (35%) Date: TBA
- Final (40%) Date: TBA by SR MUST SCORE AT LEAST 30
- Make-up Date: TBA [ after the final exam ]
  Make-up Policy: If you miss exactly one of the midterm or final exam, and if you have a valid excuse (e.g. a medical condition, an official university event participation, etc.), then you can take the make-up exam. In this case, the grade of the make-up exam counted as the grade of your missing exam. The make-up exam can be an oral exam, a written exam, or both.
- Homeworks (25%) 5-7 homeworks (mostly programming homeworks)
Tentative Outline

Week 01: Introduction, Describing Syntax and Semantics of Programming Languages

Week 02: Flex and Scanner Implementation

Week 03: Context Free Grammars

Week 04: Bison and Parser Implementation

Week 05: Abstract Syntax Trees, Semantic Analysis

Week 06: Expressions, Types and Type Checking, Statements, Scoping Rules

Week 07: Subprograms – Referencing Environments, Parameter Passing

Week 08: Subprograms – Activation Records

Week 09: Functional Programming – Expressions, Procedures

Week 10: Functional Programming – Data types

Week 11: Functional Programming – Interpreters

Week 12: Logic Programming – Relations, Rules/Facts, Inferencing

Week 13: Logic Programming – Unifications, Programming Techniques

Week 14: Parallel Programming