Course Syllabi

1. *Course number and name*
   COSC 4340: Programming Languages

2. *Credits and contact hours*
   3 Credit Hours

3. *Instructor's or course coordinator's name*
   Instructor: Leonard Brown

4. *Textbook, title, author, and year*
   - *Concepts of Programming Languages*, Sebesta, 11th Edition, 2016, ISBN 9780133943023

   a. *Other supplemental materials*
      None

5. *Specific course information*
   a. *A brief description of the content of the course (catalog description)*
      Introduction, analysis, and evaluation of the important concepts found in a variety of programming language paradigms; formalisms useful in specifying language syntax and semantics; programming language paradigms including algorithmic, functional, logic, object-oriented, visual, etc.

   b. *Prerequisites or co-requisites*
      COSC 2315 (Computer Organization), COSC 2336 (Data Structures & Algorithms)

   c. *Indicate whether a required, elective, or selected elective course in the program*
      Elective course for BSCS program

6. *Specific goals of the course*

    a. *Specific outcomes of instruction, The student will be able to*:

1. Describe the salient characteristics of several language paradigms (procedural, object-based, object-oriented, imperative, declarative/logic, functional).
2. Understand the concept of data binding and its effect upon the semantic level of the language.
3. Understand the standard mechanisms of realizing language semantics at execution time.
4. Use formal techniques (e.g. BNF) in the specification of language syntax.
5. Recognize the relationship between the semantic level of the language and its expressivity, efficiency, control mechanisms, and data types.
6. Apply the conceptual material covered in this course (i.e. binding times, run-time support etc.) to the analysis of specific languages.
7. Identify the core semantics of data types and control constructs and to recognize the similarity and differences between data and control representations of various programming languages.
8. Code programs that illustrate the core semantics of each set of languages that represent the paradigms covered in the course.
9. Discuss the technological, software-engineering, and educational issues that affected the evolution of programming languages.

    b. *Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course*
    Course address Student Outcome(s):

7. *Brief list of topics to be covered*

- Programming Language Design Issues
- Impact of Machine Architecture
- Translation and Formalization of Language Syntax
- Elementary and Structured Data Types
- Abstract Data Types and Encapsulation
- Inheritance and Polymorphism
- Expression and Statement Sequence Control
- Subprogram Sequence and Data Control Concepts
- Variations on Subprogram Control
- Storage Management Concepts

COSC 4340.001   Comparative Study of Programming Languages   Fall 2021

General Information
Instructor	Leonard Brown
Office Location	Soules 315.03
Office Hours	MWF 1:30 p.m. – 2:30 p.m. (or by appointment)
Phone	(903) 566-7403
Email	lbrown@uttyler.edu
Class Time/Location	W 6:00 p.m. – 8:45 p.m. / COB 255

Exams: There will be one midterm exam and one final exam given for this class. All exams will be held in the class lecture room. The midterm exams will be during the regular class time. The *tentative* dates of the exams are:

Midterm   October 13, 2021
Final Exam   **(See University Schedule)**

You will be notified in advance of any change in the above dates or exam location.

Grading: There are several components to the course grade totaling 1000 points. The point distribution is as follows:

Midterm Exam	200 points
Homework Assignments/Quizzes	500 points
Final Examination	300 points

Course grades will be assigned based on the following scale.

900-1000	A
800-899	B
700-799	C
600-699	D
599 and below	F

Late Policies: All homework assignments are due at 11:59 p.m. on the date specified in the assignment. Assignments submitted after the due date (even if it is by one minute) are considered late.   There is a 10% penalty for assignments submitted late. Assignments will not be accepted after 48 hours.

Plagiarism: Unless otherwise specified, all work submitted for a grade must be completed by yourself. You are not to submit another person's work and claim it as your own. Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism-

1. Do not show another student a copy of your work before it has been graded. The penalties for permitting your work to be copied are the same as the penalties for copying someone else's work.
2. Do not leave printouts of your work where other students may pick them up.

Information for Classrooms and Laboratories: Students are expected to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories). The UT Tyler community of Patriots views adoption of these practices consistent with its Honor Code and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, digestive issues (e.g. nausea, diarrhea), or a higher than normal temperature should stay at home and are encouraged to use the UT Tyler COVID-19 Information and Procedures website to review protocols, check symptoms, and report possible exposure. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

Additional Policies: http://www.uttyler.edu/academic-affairs/files/syllabuspolicy.pdf

Academic Calendar: 2021-22 Academic Calendar (uttyler.edu)

Final Exam Schedule: Final Exam Schedule (uttyler.edu)

Tentative Course Calendar

Monday	Tuesday	**Wednesday**	**Thursday**	**Friday**
Aug 23	24	25	26	27
30	31	Sep 1	2	3 Census Date
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24 HW #1 Due
27	28	29	30	Oct 1
4	5	6	7	8 HW #2 Due
11	12	13 **Midterm**	14	15
18	19	20	21	22
25	26	27	28	29 HW #3 Due
Nov 1	2	3	4	5
8	9	10	11	12 HW #4 Due
15	16	17	18	19
22	23	24	25	26
29	30	Dec 1	2	3 HW #5 Due
6	7	8	9	10