

Texas A& M University-Texarkana



CS 370: Programming Language Design

Effective Date: Fall 2016
Instructor: Dr. Feodor Vainstein
Office: SCIT 115
Office Phone: 903-334-6652
Meeting Time: W: 6:45 pm - 8:45 pm
Office Hours: T, R: 3:45 pm – 5:45pm

E-mail Address: fvainstein@tamut.edu
Course Number: CS 370
Course Title: Programming Language Design
Semester Credit Hours: 3 SCH

Catalog Course Description: This course explores the design of high-level languages; criteria for language selection; specification techniques for syntax and semantics; trends in high-level language design and introduction to programming in LISP.

Pre-requisite: BCIS 2331 or COSC1320.

Required Textbook: Concepts of Programming Languages by Robert W. Sebesta. 9th Edition. 2010. Eddison-Wesley.

ISBN: ISBN-978-0-13-607347-5

Student Learner Outcomes:

After completion of this course the student will be able to:

- Understand basic concepts Programming Language Design including Language Evaluation Criteria, Language Categories, Evolution of the Major Programming Languages, Syntax and Semantics, Lexical and Syntax Analysis, Data Types, and Functional Language Programming.
- Understand various implementations of these concepts.
 - Use the concepts covered in the course for evaluation and design of computer languages, and compilers .

Course Objectives:

The primary objective in this course is to introduce students to various concepts used in computer organization.

In this course students will:

1. Develop a thorough understanding of basics of programming language design.
2. See how these concepts are implemented.
3. Develop greater facility to think about programming language design and applications.

Complete Course Schedule:

Week 1: Preliminaries

Week 2: Language Evaluation Criteria

Week 3: Implementation Methods

Week 4: Evaluation of Major Programming Languages

Week 5: Evaluation of Major Programming Languages

Week 6: Syntax and Semantics . Test 1.

Week 7: Lexical and Syntax Analysis

Week 8: Lexical and Syntax Analysis

Week 9: Lexical and Syntax Analysis

Week 10: Data Types

Week 11: Expressions and Assignment Statements

Week 12: Expressions and Assignment Statements. Test 2.

Week 13: Abstract Data Types

Week 14: Functional Programming

Week 15: Functional Programming

Week 16: Test 3.

Required Regulations:

Disability Accommodations: Students with disabilities may request reasonable accommodations through the A&M-Texarkana Disability Services Office by calling 903-223-3062.

Academic Integrity: Academic honesty is expected of students enrolled in this course. Cheating on examinations, unauthorized collaboration, falsification of research data, plagiarism, and undocumented use of materials from any source constitute academic dishonesty and may be grounds for a grade of 'F' in the course and/or disciplinary actions. For additional information, see the university catalog.

Statement on email usage: Upon application to Texas A&M University-Texarkana an individual will be assigned an A&M-Texarkana email account. This email account will be used to deliver official university correspondence. Each individual is responsible for information sent and received via the university email account and is expected to check the official A&M-Texarkana email account on a frequent and consistent basis. Faculty and students are required to utilize the university email account when communicating about coursework.

Drop Policy: To drop this course after the census date (see [semester calendar](#)), a student must complete the Drop/Withdrawal Request Form, located on the University website

<http://tamut.edu/Registrar/droppingwithdrawing-from-classes.html>) or obtained in the Registrar's Office. The student must submit the signed and completed form to the instructor of each course indicated on the form to be dropped for his/her signature. The signature is not an "approval" to drop, but rather confirmation that the student has discussed the drop/withdrawal with the faculty member. The form must be submitted to the Registrar's office for processing in person, email Registrar@tamut.edu, mail (7101 University Ave., Texarkana, TX 75503) or fax (903-223-3140). Drop/withdraw forms missing any of the required information will not be accepted by the Registrar's Office for processing. It is the student's responsibility to ensure that the form is completed properly before submission. If a student stops participating in class (attending and submitting assignments) but does not complete and submit the drop/withdrawal form, a final grade based on work completed as outlined in the syllabus will be assigned.

Course Requirements: The instructor expects the students to attend the classes and do the home work assignments.

Method of Evaluation: 3 tests 33.3% each

Grading Scale:

90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

Disclaimer: The above procedures are subject to change at the discretion of the instructor.