

CSCI 3336 Organization of Programming Languages
MW 10:50 am to 12:05 pm – BLHSB 1.402
Spring 2019
Syllabus and Policy

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Course Organization (Weekly)*

Jan	14	Review of number systems, logic and programming
	21	Data, operators and functions
	28	Procedures and recursion
Feb	4	Exam #1 (February 4); Data abstraction
	11	Data driven programming
	18	Evolution of processes
	25	locally defined procedures
Mar	4	Exam #2 (March 4); Abstracting procedures
	11	<i>Spring Break</i>
	18	Object oriented programming
	25	Object oriented programming (... <i>continued</i>)
Apr	1	Sets, vectors, and relational calculus
	8	Exam #3 (April 8); Sets, vectors, and relational calculus
	15	Grammars, regular expressions and CFG/CSG
	22	Grammars, regular expressions and CFG/CSG (... <i>continued</i>)
	29	Functional languages

Comprehensive Final Examination, Monday May 6, 10:15 am - 12:00 pm

** The topics listed above are a general guideline of topics intended to be covered following the shown weekly timeline through the duration of the course. Depending on the pace and progress during the semester, topics may be substituted or have their sequence changed. [Some classes may be scheduled online. This will be announced through Blackboard.](#)*

Textbook and/or Resource Material

A. Textbook(s)/Reference(s):

- [1. Resources such as Internet platforms and tutorials/material on the Internet will be used.](#)
- [2. Little Lisp by Daniel P. Friedman and Matthias Felleisen](#)
- [3. Practical Common Lisp by Peter Seibel](#)

B. Software:

- [1. Mostly, CLISP... and other functional programming languages](#)

Course Description and [Prerequisites](#)

This course describes the fundamental concepts of programming languages by discussing the design of the various language constructs, examining the design choices for these constructs, critically comparing design alternatives and discussing implementation techniques. The underlying theory and formal modes of describing the syntax and semantics including finite automata and regular expressions, context-free grammars, context-sensitive languages and the Chomsky Hierarchy are included. [Prerequisites: CSCI 2380 \(or CSCI 2388\) or CMPE 2380 \(CMPE 2388\).](#)

Teaching Philosophy

The instructor encourages students to learn from variety of sources, especially, from resources available on the Internet. One of the objectives is to turn students into self-learners so the students do not passively rely on the classes to gain knowledge.

Learning Objectives/Outcomes for the Course

After completing this course the student should be able to:

- explain abstraction in programming
- distinguish between recursive and traditional programming
- design structured programs using lists
- explain evolution of processes
- design recursion based programs to tackle complex problems
- explain data driven programming
- design intelligent programs

Learning Objectives for Core Curriculum Requirements

- To acquaint the student with different programming designs and features
- To familiarize the student with modern trends in programming

ABET Learning Objectives/Outcomes for the Course

- ABET (a) an ability to apply knowledge of mathematics, science, and engineering
- ABET (b) an ability to design and conduct experiments, as well as to analyze and interpret data
- ABET (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- ABET (d) an ability to function on multidisciplinary teams
- ABET (f) an understanding of professional and ethical responsibility
- ABET (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- ABET (i) a recognition of the need for, and an ability to engage in life-long learning

Grading Policy

Exam #1 + Exam #2 + Exam #3 + Final Exam	= 15 + 15 + 15 + 15	= 60%
Projects/assignments		= 20%
Quizzes (including pop quizzes)		= 20%
Penalties		
Every tardy incident...		= - 1%

Grade A: 90% or higher

Grade B: 80% - 89%

Grade C: 70% - 79%

Grade D: 60% - 69%

Grade F: 59% or lower

Individual make-up exams will not be given. If a student does better on the final comprehensive exam, the lowest exam score (out of Exam #1, Exam #2, and Exam #3) will be dropped and its allocated percentage will be divided over the remaining two exams and the final (as shown in the example provided in "[Calculating your grade](#)" section below).

Individual make-up quizzes, assignments or projects will not be given. The lowest quiz score will be dropped. Also, the lowest assignment/project score will be dropped.

Calculating your grade:

- Each Exam is out of 100 points unless otherwise specified
- Each Project, assignment, or a quiz, is out of 10 points unless otherwise specified

Let's say that there have been 11 assignments/projects and 21 quizzes given during the semester. As an example, let's say that a student has received the following scores:

Exam #1: 78

Exam #2: 65

Exam #3: 89

Final Exam: 85

Assignments/projects (after dropping the assignment/project with the lowest score): 82 out of 100

Quizzes (after dropping the quiz with the lowest score): 180 out of 200

The student's grade is calculated as follows:

$$78 \times .20 + 89 \times .20 + 85 \times 0.20 + 82 \times .20 + (180/200) \times 100 \times 0.2 = \mathbf{84.8 \rightarrow B}$$

Late assignments/projects will be accepted but these will be counted at 75% of the on-time assignments/projects. **Late assignments/projects will not be accepted** if the instructor has **started grading** the submitted assignments/projects or the respective solution has been made available.

Attendance is required and exam/quiz material will cover lectures, text, assignments and projects.

The exam dates may be changed by the instructor per unforeseen situations. If a student misses a class, it is his/her responsibility to contact the instructor to acquire information on the scheduled exam and what was covered in the missed class. *This must be accomplished before coming to the next class.*

Any kind of grading disagreement must be initiated and settled within one week of the graded exam, project, quiz, or assignment in question. *The student needs to email the instructor a snapshot of the graded material in question, and explain what is being disputed.* The submitted material may be shredded/deleted by the instructor after four weeks of the submission deadline.

Copying from colleagues, lecture notes, books, past course material, electronic resources (such as Internet), etc. will be credited with 0. Such activity will be regarded as scholastic dishonesty and action will be taken as described under the section "Scholastic Integrity" herein.

Verbal agreements are not valid. All alterations, changes, modifications, or permissions are written and announced through email or Blackboard.

Computer Science Advising Material

Computer Science advising material is available on Blackboard. A student may self-enroll by entering "Computer Science Advising" in the search box under "Organization Search" and enrolling in it.

Blackboard Orientation

To actively participate in this course one needs to get familiar with the course environment. This course uses Blackboard tools. One can get familiar with these tools by self-enrolling and reviewing the orientation provided:

- In Blackboard, use the **Course Search** box and enter *Blackboard Orientation*
- Click on **Go**
- Click on the **Enroll** button to include the *orientation course* in your *Blackboard MyCourses* list

Contacting Instructor and Instructor's Response Time

Use instructor's email given above for contacting him regarding the course content. Normally, the instructor will respond within two working weekdays. Any exceptions will be announced through Blackboard announcement mechanism. Technical questions on Blackboard should be referred to Blackboard Support (see under Course Technology).

Grades are normally updated each time a grading session has been completed – typically within two working weekdays or before the next class session.

Course Technology

Click on <http://www.utrgv.edu/online/getting-support/course-technology/index.htm> to review information on course technology which covers technical requirements, expectations, Blackboard orientation, accessibility, privacy statement links, and contacting Blackboard Support.

UTRGV ID

Validated UTRGV ID is required for admission to a university lab and during an exam session.

UTRGV EMAIL

Only UTRGV email may be used in any communication with the instructor. Using any other email may not yield a response. Blackboard "Course Messages" may not be used to communicate with the instructor.

Electronics

Cell phones and other personal electronic equipment must be turned off and put away during class/exam/quiz sessions.

Changes in the course content

Changes in the course content and topics may be made by the instructor as deemed necessary.

Other Course Information

The lab work required in the course is integrated with the course itself in the form of assignments/projects. Besides the formal allotted time, a large number of hours may be required to be spent working on a computer. You may only do work related with the class when in class. *Activities unrelated with the class (such as texting, talking, browsing, unless otherwise explicitly instructed by the instructor to do so) are prohibited during a class session.*

Calendar of Activities

Include in this section a table or list that provides information for students regarding important dates, assignments or activities. The UTRGV academic calendar can be found at <https://my.utrgv.edu/home> at the bottom of the screen, *prior to login*. Some important dates for spring 2019 include:

January 14	First day of classes
January 17	Last day to add a course or register for spring 2019
January 21	Martin Luther King Jr. Day – NO classes
April 10	Last day to drop a course; will count toward the 6-drop rule
April 19-20	Easter Holiday – NO classes
May 2	Study Day – NO classes
May 3-9	Final Exams
May 10-11	Commencement Exercises

Other Course Information

In this section, please provide any other information that is pertinent to your course and your expectations for students.

UTRGV Policy Statements

STUDENTS WITH DISABILITIES:

Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive academic accommodations should contact **Student Accessibility Services (SAS)** as soon as possible to schedule an appointment to initiate services. Accommodations can be arranged through SAS at any time, but are not retroactive. Students who suffer a broken bone, severe injury or undergo surgery during the semester are eligible for temporary services.

Pregnancy, Pregnancy-related, and Parenting Accommodations

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Accessibility Services for additional information and to request accommodations.

Student Accessibility Services:

Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at ability@utrgv.edu. **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at ability@utrgv.edu.

MANDATORY COURSE EVALUATION PERIOD:

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (<http://my.utrgv.edu>); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available on or about:

Module 1	February 13 – 19
Module 2	April 10 – 16
Full Spring Semester	April 10 – May 1

ATTENDANCE: Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV's attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Keeping this in perspective, make note of the following regarding how any missed work or exam is dealt with in this class:

Make-up exams will not be given. If a student does better on the final comprehensive exam, the lowest exam score (out of Exam #1, Exam #2, and Exam #3) will be dropped and its allocated percentage will be divided over the remaining two exams and the final (as shown in the example provided in “**Calculating your grade**” section above).

Make-up quizzes, assignments, or projects will not be given. The lowest quiz score will be dropped. Also, the lowest assignment/project score will be dropped.

SCHOLASTIC INTEGRITY:

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism (including self-plagiarism), and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:

In accordance with UT System regulations, your instructor is a “Responsible Employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct and discrimination. If students, faculty, or staff would like

confidential assistance, or have questions, they can contact OVAVP (Office for Victim Advocacy & Violence Prevention) at 665-8287, 882-8282, or OVAVP@utrgv.edu.

COURSE DROPS:

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

STUDENT SERVICES:

Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Students Services Center (U Central) for additional information. U Central is located in BMAIN 1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email (ucentral@utrgv.edu) or telephone: (888) 882-4026. In addition to financial aid, U Central can assist students with registration and admissions.

Students seeking academic help in their studies can use university resources in addition to an instructor’s office hours. University Resources include the Learning Center, Writing Center, Advising Center and Career Center. The centers provide services such as tutoring, writing help, critical thinking, study skills, degree planning, and student employment. Locations are:

- Learning center: BSTUN 2.10 (Brownsville) or ELCTR 100 (Edinburg)
- Writing center: BLIBR 3.206 (Brownsville) or ESTAC 3.119 (Edinburg)
- Advising center: BMAIN 1.400 (Brownsville) or ESWKH 101 (Edinburg)
- Career center: BCRTZ 129 (Brownsville) or ESSBL 2.101 (Edinburg)

DISCLAIMER:

The instructor reserves the right to alter this syllabus.