

CSE 3302-001: Programming Languages

Fall 2013: MWF 1:00 - 1:50 p.m., Woolf Hall 308

Instructor: Bob Weems, Associate Professor
Office: 627 ERB (weems@uta.edu, <http://ranger.uta.edu/~weems>)
Hours: MF 11:15 a.m. - 12:45 p.m.

GTA: Information will be posted on web page

Prerequisites: O-O programming (CSE 1325)
Algorithms & Data Structures (CSE 2320)

Objectives: In future design situations, students will be capable of considering programming language issues.

Outcomes:

1. Understanding of programming language paradigms, including imperative, functional, and object-oriented.
2. Understanding of the breadth of design issues in defining programming languages, along with those for building compilers, interpreters, and run-time systems.
3. Understanding, at an elementary level, of the formalisms and notations used with programming languages.

Textbooks: R.W. Sebesta, *Concepts of Programming Languages, 10th ed.*, Addison-Wesley, 2012.

D. Crockford, *JavaScript: The Good Parts*, Yahoo Press, 2008.

D.P. Friedman, et.al., *The Little Schemer, 4th ed.*, MIT Press, 1995.

N. Wirth, *PASCAL -S: A Subset and its Implementation*, ETH Technical Report 12, 1975 (available from webpage).

References: Links on the course webpage.

Readings: Indicated on calendar later in syllabus.

Grade: Based on the following weights:

Exams 1-3: 70% divided evenly among 4 exams.

Exam 4: Monday, December 9 11:00-1:30

Programs: 30% divided evenly among six assignments.

Policies:

1. Regular attendance is expected. You are expected to know lecture contents and announcements. I reserve the right to have surprise quizzes, each quiz being 2% of the semester grade taken from the 70% allocated to exams.
2. The course web page is <http://ranger.uta.edu/~weems/NOTES3302/cse3302.html>.
3. You are expected to have read the assigned readings by the specified date. Lectures will review and augment the material, but will also consider exercises from the book.
4. CHEATING - YOU ARE EXPECTED TO KNOW UNIVERSITY POLICIES. If you are suspected of cheating, the matter must go through university channels outside of the CSE Department.

Academic Integrity Policy: It is the policy of the University of Texas at Arlington to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and truth. Furthermore, it is the policy of the University to enforce these standards through fair and objective procedures governing instances of alleged dishonesty, cheating, and other academic/non-academic misconduct.

You can assume responsibility in two ways. **First**, if you choose to take the risk associated with scholastic dishonesty and any other violation of the Code of Student Conduct and Discipline, you must assume responsibility for your behaviors and accept the consequences. In an academic community, the standards for integrity are high. **Second**, if you are aware of scholastic dishonesty and any other conduct violations on the part of others, you have the responsibility to report it to the professor or assistant dean of students/director of student judicial affairs. The decision to do so is another moral dilemma to be faced as you define who you are. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

5. Any request for special consideration must be appropriately documented in advance. (Special consideration does not include giving a higher grade than has been earned.)
6. Late programs are penalized according to the following schedule. LABS ARE DUE AT 12:45 PM ON THE DUE DATE, NOT MIDNIGHT. After the due time, assistance will not be provided.

<u>Degree of lateness</u>	<u>Penalty</u>
Up to 12:45 next day	5 pts
Up to 12:45 two days	15 pts
Up to 12:45 three days	30 pts
Up to 12:45 four days	60 pts

7. Each lab is graded as follows:

Some Issues

- | | | |
|----------------|-----|--|
| a. Output/Code | 70% | If you know your program has problems, you should let the GTA know what parts are functional. Test cases demonstrating the limited functionality are useful. |
| b. Style | 15% | The emphasized language features are applied appropriately. |
| c. Structure | 15% | Code is not unnecessarily complicated or long. It is often better to rewrite code rather than patching several times. |

You are responsible for correctly sending each programming assignment to the GTA as an attachment. (cc: yourself)

Points will not be awarded for programs that are not substantially complete.

8. GTA duties:

- Provide first-level of assistance for programs.
- Grade programs and short-answer test problems.

9. Instructor duties:

- Lecture.
- Guidance
- Tests - preparation and grading long-answer test problems.
- Special consideration.
- Design homework and programming assignments.

10. If you require a reasonable accommodation for a disability, please contact me no later than the second week of this semester. Further details are available at <http://www.uta.edu/disability>.

11. Occasional class-wide email messages (e.g. weather situations, clarifications) may be sent to the addresses recorded by MyMav. Messages will also be archived on the course web page.

Course Content (in chronological order)

Reading Annotations: J = Crockford, P = Wirth, S = Friedman

1. Preliminaries. 1, 2.4, 2.5, 2.11, 2.12, 2.15, 2.16, 2.17, 2.18
2. Three New Friends. 15.1-15.5; J: 1, 10; P: 1-3; S: 1-4
Exam 1: Topics 1.-2.

3. Syntax & Semantics. 3.1-3.4, 3.5.1, 3.5.2; J: 2, D; P: A
4. Lexical & Syntax Analysis. 4; J: 7; P: 5
5. Names, Bindings, and Scopes. 5 (no 5.5.5, 5.5.6)
Exam 2: Topics 3.-5.

6. Data Types. 6; J: 3-6; S: 5-7
 7. Expressions & Assignment. 7; S: 8
 8. Statement-Level Control Structures. 8
 Exam 3: Items 6.-8.

9. Subprograms. 9
 10. Implementing Subprograms. 10 (no 10.6); P: 4
 11. Functional Programming. 15.7, 15.8; S: 9-10
 Exam 4: Items 9.-11.

August/September			October		
		23 Syllabus		2	4
26 1.	28	30	7	9 6.	11
2 Holiday	4 2.	6	14	16 7.	18
9	11	13	21 Exam 2	23	25
16 3.	18	20 4.	28	30 8.	
23 Exam 1	25 5.	27			
30					
November			December		
		1	2	4	
4	6 9.	8	9 Exam 4		
11 Exam 3	13 10.	15			
18	20	22 Holiday			
25 11.	27	29			

October 30 is the last day to drop.