

## CSE 3302-001: Programming Languages

Spring 2014: TR 9:30 - 10:50 a.m., Nedderman Hall 112

Instructor: Bob Weems, Associate Professor  
Office: 627 ERB (weems@uta.edu, <http://ranger.uta.edu/~weems>)  
Hours: T 11:15 a.m - 1:15 p.m., R 1:00 - 3:00 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 3 exams.

Exam 3: Thursday, May 8, 8:00-10:30 a.m.

Programs: 30% divided evenly among 4 - 6 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.

<http://www.uta.edu/conduct/>

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 9:15 AM 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 9:15 next day	5 pts
Up to 9:15 two days	15 pts
Up to 9:15 three days	30 pts
Up to 9:15 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:
  - a. Provide first-level of assistance for programs.
  - b. Grade programs and short-answer test problems.
9. Instructor duties:
  - a. Lecture.
  - b. Guidance
  - c. Tests - preparation and grading long-answer test problems.
  - d. Special consideration.
  - e. 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
3. Syntax & Semantics. 3.1-3.4, 3.5.1, 3.5.2; J: 2, D; P: A  
Exam 1: Topics 1.-3.
4. Lexical & Syntax Analysis. 4; J: 7; P: 5
5. Names, Bindings, and Scopes. 5 (no 5.5.5, 5.5.6)
6. Data Types. 6; J: 3-6; S: 5-7
7. Expressions & Assignment. 7; S: 8  
Exam 2: Topics 4.-7.
8. Statement-Level Control Structures. 8
9. Subprograms. 9
10. Implementing Subprograms. 10 (no 10.6); P: 4
11. Functional Programming. 15.7, 15.8; S: 9-10  
Exam 3: Items 8.-11.

Calendar - with topic numbers from course content

January			February			March		
14	Syllabus	16 1.	4 3.	6 3.	4 6.	6 7.		
21	1.	23 2.	11 4.	13 4.	11 SPRING	13 BREAK		
28	2.	30 2.	18 5.	20 6.	18 7.	20 8.		
			25	27 Exam 1	25 8.	27		
April			May					
1	9.	3		1				
8	Exam 2	10 10.		8 Exam 3				
15	10.	17 11.						
22	11.	24 11.						
29								

March 28 is the last day to drop; submit requests to major advisor prior to 4:00 p.m.