

Course Syllabus

Course Information

<i>Course Number/Section</i>	CS / CE 4337.503
<i>Course Title</i>	Organization of Programming Languages
<i>Term</i>	Fall 2017
<i>Days & Times</i>	MW 7:00 – 8:15

Professor Contact Information

<i>Professor</i>	Dr. Timothy McMahan
<i>Office Phone</i>	972-883-4162
<i>Email Address</i>	Timothy.McMahan@utdallas.edu
<i>Office Location</i>	ECSS 2.604
<i>Office Hours</i>	M & W 1:30 - 3:00 T & Th 10:45 – 11:45 by Appt.

TA Contact Information

<i>TA</i>	Shuyang Gu
<i>Email</i>	Shuyang.Gu@utdallas.edu
<i>Office Location</i>	ECSS 2.103B1
<i>Office Hours</i>	T & Th 3:00 – 4:00

Course Pre-requisites, Co-requisites, and/or Other Restrictions

(CE 2336 or CS 2336 or TE 2336 or CS 3333) and
(CE 2305 or CS 2305 or TE 2305) and
(CS 3340 or SE 3340 or TE 3340 or CE 4304 or EE 4304)

Course Description

Organization of Programming Languages (3 semester hours) Principles of design and implementation of contemporary programming languages. Formal description including specification of syntax and semantics of programming languages. Language definition structures including binding, scoping, data types, control structures, parameter passing, abstraction mechanism, and run-time considerations. Design issues of imperative languages, object-oriented languages, functional languages and logic languages. Design, implement, and debug programs in various programming language paradigms.

Student Learning Objectives/Outcomes

- Ability to identify the characteristics of programming paradigms and phases of translation
- Ability to understand the importance of formal syntax and semantics
- Ability to understand the different forms of binding, visibility, scoping, and lifetime
- Ability to understand the semantics of expressions and data types
- Ability to understand the concepts of data abstraction, control abstraction and various parameter passing mechanisms
- Understand the concepts of encapsulation, information hiding, inheritance, and polymorphism
- Ability to understand the concepts of first class values, lists and recursion
- Ability to understand the concepts of the functional programming paradigm and logic programming paradigm

- Design programs using the functional programming paradigm
- Design programs using the logic programming paradigm

Required Textbooks

Concepts of Programming Languages, 11th edition, Robert Sebesta, Addison Wesley Pub., 2015.

Grading Policy

Item	Weight
Participation + Attendance + Quiz	5%
Homework Assignments	15%
Programming Assignments	20%
Exams x3 (20 % each)	60%

%	Letter Grade	GPA Credit
≥ 97	A+	4.00
94 - 97	A	4.00
90 - 94	A-	3.67
87 - 90	B+	3.33
84 - 87	B	3.00
80 - 84	B-	2.67
77 - 80	C+	2.33
74 - 77	C	2.00
70 - 74	C-	1.67
67 - 70	D+	1.33
64 - 67	D	1.00
60 - 64	D-	0.67
0 - 60	F	0.00
-	NF*	0.00

* Failure for non-attendance

Tentative Schedule

Week	Topic	Chapter	Exam
1 - 8/21	Syllabus, Introduction	Sebesta Ch 1	
2 - 8/28	Lisp	Sebesta Ch 2	
3 - 9/4	Labor Day No Class/Lisp	Sebesta Ch 15	
4 - 9/11	Lisp/Functional Prog.		
5 - 9/18	JFLAP	Sebesta Ch 3	
6 - 9/25		Sebesta Ch 4	Exam 1 - 25 th - 27 th
7 - 10/2	Prolog	Sebesta Ch 16	
8 - 10/9		Sebesta Ch 5	
9 - 10/16		Sebesta Ch 6	
10 - 10/23		Sebesta Ch 7	
11 - 10/30	Advance Topics (as Time	Sebesta Ch 8	Exam 2 - 30 th - 1 st
12 - 11/6	Permits) PHP, MySQL,	Sebesta Ch 9 -10	
13 - 11/13	JavaScript, Python, ASP	Sebesta Ch 11	

14 – 11/20		Sebesta Ch 12	
15 – 11/27			Exam 3 – 27 th - 29 th
16 – 12/4	12/6 Last Class Day		

Course Policies

- eLearning is the official information portal for this course. Course announcements, homework, lecture slides, assignments, and grades will be communicated via eLearning.
- Final course grades will be posted in Galaxy by the Records Office.
- Attendance:
 - Lecture attendance will be recorded.
 - If you are not able to attend a lecture, you are responsible for any information communicated during that class, including but not limited to – lecture notes, assignments, announcements, and schedule changes.
 - If you miss three consecutive classes, your final grade will be reduced by one letter grade. If you miss total four consecutive classes, it results in an automatic grade of F. This is departmental policy.
- All submissions must be your own work. Students guilty of plagiarism will receive zero credit for the plagiarized work and may be subject to further academic penalties.
- If you decide to stop attending class, be sure to drop or withdraw from the course. Otherwise, you risk receiving an ‘F’ or ‘NF’ for the course.
- The course Teaching Assistant (TA) will grade all Homework and Programming Assignments. Questions about homework or assignment grades should be directed first toward the TA.
- Any student wishing to review or contest an assignment or exam grade has exactly one calendar week from the time the grade is posted to initiate an inquiry.
- Make up exams for either exams will be administered only for verifiable emergencies. A student must make every attempt possible, via telephone or email, to notify the instructor that he/she will miss the exam prior to the examination date and time.

Homework and Assignments

- All Homework assignments and programming assignments are submitted online through eLearning
- Late submission policy homework and programming assignments will be penalized:
 - -10% of possible project points for up to 24 hours late,
 - -25% of possible project points for up to 48 hours late,
 - -50% of possible project points for up to 72 hours late,
 - No credit for more than 72 hours late.
- Assignments and Homework are due before the deadline time. e.g. an assignment due at 11:59PM is LATE if the time stamp is 11:59PM. Please do not wait until the last minute to submit. The unpredictability of your internet connection is not a valid excuse for a late submission. Only a verified eLearning outage will be considered a valid reason to waive late submission policy.
- No additional individual assignments can be assigned for extra credit. Only assignments that are available to the entire class may count toward the course grade.

Exams

- Exams are closed book and closed notes.
- Exams will be comprehensive, although more weight will be given to material presented after the first exam.
- Exams will be on the date/time set in the future.
- Tentatively exams will be administered in the Testing Center (in the basement of the McDermott Library) via eLearning. All Testing Center policies apply with respect to items that are disallowed (jackets, pencil boxes, bottled water, etc.).
- The Exams will not be returned. They will be kept on file by the instructor for one additional semester. Anyone wishing to review his/her exam solutions can make an appointment with the instructor or see him during his office hours.

UT Dallas Syllabus Policies and Procedures

Please visit <http://go.utdallas.edu/syllabus-policies> for other policies