

**4005-710
Term 20101**

Programming Language Theory

**Handout 1
September 6, 2010**

Syllabus

General Information

Instructor: Matthew Fluet
E-mail: `mtf@cs.rit.edu`
Office hours: T 3:00pm – 5:00pm; GOL(70)-3555
R 9:00am – 11:00am; GOL(70)-3555
F 1:00pm – 3:00pm; GOL(70)-3555
or by appointment

Lectures: Section 01 MW 12:00pm – 1:50pm; GOL(70)-2690

Website: `www.cs.rit.edu/~mtf/teaching/20101/plt`
`mycourses.rit.edu`

Course Description

An introduction to the basic concepts of programming language design. It begins with a survey of the issues that are involved in the design and implementation of languages. Specific tools for the description of syntactic and semantic structure are introduced. The balance of the course is an analysis of programming language structure, using these descriptive tools to give precise form to the discussion. Programming assignments will be required.

Prerequisites

- 4005-450/4003-709 (Programming Language Concepts) **and** 1016-265 (Discrete Math I)
- **or** permission of instructor

Text Books

Required:

Title: Types and Programming Languages
Author: Benjamin C. Pierce
Publisher: The MIT Press
ISBN: 978-0262162098
Website: <http://www.cis.upenn.edu/~bcpierce/tapl/>
RIT Library e-book: : <http://albert.rit.edu/record=b1889507~S3>

Suggested:

Title: The Formal Semantics of Programming Languages
Author: Glynn Winskel
Publisher: The MIT Press
ISBN: 978-0262731034

Additional:

Title: Advanced Topics in Types and Programming Languages
Editor: Benjamin C. Pierce
Publisher: The MIT Press
ISBN: 978-262162289
Website: <http://www.cis.upenn.edu/~bcpierce/attapl/>
RIT Library e-book: : <http://albert.rit.edu/record=b1889507~S3>

Grades, Exams, and Assignments

Grades will be assigned based on the following grading scheme:

Attendance & Participation:	10.0%
Homework Assignments (≈ 5):	60.0%
Mid-term Exam:	10.0%
Final Exam:	20.0%

Attendance & Participation

Students are required to attend and expected to participate in class. Participation means being an engaged student: asking and answering questions, not simply attending class.

The use of cell phones and audio players is prohibited during class. If you must take a phone call, please leave the classroom immediately and do not return until you have ended the phone call.

The use of a laptop (or notebook or netbook) computer is permitted during class only for the purpose of taking notes. Persistent use of a laptop for other activities will result in 0 credit for your *Attendance & Participation* grade.

Assigned readings should be completed before the lecture section. You are responsible for the material in assigned readings, whether covered during lecture or not.

Mid-term Exam

There will be one mid-term exam; see below for date.

The mid-term exam must be taken at its scheduled time. Make-up mid-term exams will not be administered, unless exceptional circumstances have been discussed with the instructor in advance of the exam date and/or other arrangements have been made.

Final Exam

There will be a final exam; see below for the date. The final will be comprehensive and will cover material from the entire course, including readings, lectures, and assignments.

The final exam must be taken at its scheduled time. Any exam conflicts must be reported to the instructor by the end of Week 6 (see the RIT Final Examination Policies).

Homework

There will be (approximately) 5 homework assignments, which will include both written and programming components.

Written components of homeworks must be clear and concise. Illegible solutions cannot be graded and will receive zero credit. You are strongly encouraged to electronically prepare your solutions. The \LaTeX typesetting system is particularly well suited for the preparation of computer science and mathematical texts (significantly more so than a word processor).

Programming components of homeworks must use the Standard ML programming language, which will be discussed in class. You will generally be provided with source code on which to base your solution.

Late Policy

Assignments (submitted electronically and submitted in person) will generally be due at the beginning of a class period.

Assignments are to be submitted on time. However, to accommodate the occasional difficulty with meeting an assignment due date, each student begins the term with five “extension tokens.” By spending an extension token, you will receive a 24-hour extension on a single assignment. To spend an extension token, you must e-mail the instructor before the assignment is due; you cannot spend an extension token after an assignment’s due date has passed. You may spend at most two extension tokens on a single assignment (and you may spend the second extension token at any time before the first extension expires). After spending five extension tokens, late assignments will not be accepted.

Regrading

After a graded exam or assignment has been returned, you have **one week** to bring any questions about grading to the instructor’s attention. No grade adjustments will be made after this time.

Important Dates

October 11 (Mon.):	Mid-term Exam (in class, 110min)
November 18 (Thur.):	Final Exam (8:00am – 10:00am; GOL(70)-2690; Section 01)

Academic Integrity

As with all courses, the RIT Honor Code and the RIT Academic Honesty Policy apply. See the Department of Computer Science's statement on academic integrity for more details.

In this course, all submitted work must be your own work (i.e., written or programmed by you alone, unless explicitly stated otherwise) and must include acknowledgments of any collaborators or sources (other than course text books or handouts) used to produce your submission. However, you are not permitted to review assignments or solutions or course materials from similar courses offered at other institutions in preparing your work.

You are encouraged to discuss course material with other students. Discussion of assignments is also allowed, but sharing solutions or code is not allowed.

Disclaimer

I reserve the right to make any changes to the syllabus as I deem necessary throughout the course. Minor changes, such as assignment due dates, will be announced orally during class and posted on the course mailing list and home page. Major changes, such as grading percentages, will additionally be provided in writing.

Acknowledgements

Portions of this course material based upon similar courses offered at University of Washington (Dan Grossman), Cornell University (Andrew Myers, Dexter Kozen, Nate Foster), Indiana University (Amal Ahmed), Harvard University (Greg Morrisett).