

Design and Selection of Programming Languages

5th September 2002

Outline

Instructor: Dr. Wolfram **Kahl**
Department of Computing and Software
Faculty of Engineering
McMaster University
ITB-245
E-Mail: kahl@mcmaster.ca
Office hour: Monday, 1:30-2:30

Prerequisites: SFWR ENG 2B03 or 2B04; and SFWR ENG 2C04

Corequisite: SFWR ENG 3F03

Goals:

The student who successfully completes this course should understand the fundamental structure of programming languages, be familiar with key issues in language design and implementation, and be aware of the range of available languages and their uses.

For this, you need to acquire **knowledge** and **understanding** of **programming language concepts**. Understanding implies the ability to **apply** the knowledge to new circumstances.

Understanding of programming language concepts is not equivalent to mastering all the discussed programming languages. However, understanding important concepts will come together with **reading skills** for typical programming languages exhibiting those concepts.

In addition, in the tutorial/lab component students are guided to acquire **programming skills** in **selected programming languages** as part of this course. The process of acquiring these programming languages should, at the same time, be used to improve awareness of differences between programming languages and to improve the understanding of programming language concepts and fundamentals.

Schedule: Lectures: Monday and Thursday, 12:30–1:20, HSC-1A4
Programming Language Tutorial: Thursday, 2:30-3:30 in ABB-164
Tutorial Exercises: TBA
Lab Reservation: Thursday, 2:30-5:20, ITB-235, ITB-236

Course Pages: <http://www.cas.mcmaster.ca/~kahl/SE3E/2002/>

This is where you find further information, especially concerning tutorial organization and software installation. Electronic versions of the assignment sheets will also be kept there.

It is the student's responsibility to be aware of the information in the course Web pages, and to check regularly for announcements.

Tutorial Exercises: There will be weekly **assignment** sheets. Every student is expected to complete these assignments *before* the corresponding tutorial exercise session. The tutorial exercise sessions are intended for *discussion of student solutions*.

Details of the tutorial organization will be announced separately.

Textbook: Terrence W. Pratt and Marvin V. Zelkowitz. *Programming Languages: Design and Implementation* (fourth edition). Prentice Hall, 2001. ISBN 0-13-027678-2.

Grading: All examinations in this course will be **Closed Book**. That is, no written or printed material nor a calculator may be used during the examinations.

The **final examination** will be scheduled by the Registrar's Office in the usual way. It will be a closed book examination of three hours duration and cover the material of the lectures, tutorials, handouts, and assignments.

In addition, there will be **two midterm examinations**; details to be announced. Technically, these midterms are optional: there will be no opportunity to repeat a missed midterm.

All exam grades will be percentage grades.

For every student, the course grade is calculated as a weighted average of the grade of the final exam and the grades of those midterm examinations that are better than the final, where these midterms count 20% each.

The course grade will be converted from a percentage grade to a letter grade by the Registrar's Office.

The instructor reserves the right to conduct any deferred exams orally.

Official Statements

Academic Dishonesty

"Students are reminded that they should read and comply with the Statements on Academic Ethics and the Senate Resolutions on Academic Dishonesty as found in the Senate Policy Statements distributed at registrations and available in the Senate Office."

Discrimination

"The Faculty of Engineering is concerned with ensuring an environment that is free of all adverse discrimination. If there is a problem that cannot be resolved by discussion among the persons concerned, individuals are reminded that they should contact the Department Chair, the Sexual Harassment Office or the Human Rights Consultant, as soon as possible."