FACULTY OF COMPUTER SCIENCE
CS4613 – Programming Languages
Course Organization
January-April, 2008

1. **OBJECTIVES:** This course will provide an overview of programming languages. This will include both an examination of the principles common to many programming languages and an examination of several languages to illustrate the application of these principles. The overall objective of this course is to prepare students to use the programming languages that they already know more effectively, to learn new programming languages, and to choose languages best suited to implementation of a particular application.

2. **PREREQUISITES:** There are two prerequisites: 1) previous successful completion of either CS2013 or CS2043 with a grade of C or better; 2) successful completion of at least 90ch in the BCS program. Students not meeting the prerequisite may present extenuating circumstances to the instructor for consideration. However, permission to take the course without prerequisites will be granted only in rare circumstances. Students not meeting the prerequisites and not receiving permission to continue will be required to withdraw from the course.

3. **TEXT:** Sebesta, Robert. Concepts of Programming Languages, Eighth Edition. Pearson/Addison Wesley, Boston, 2007. ISBN-13: 978-0-321-49362-0, ISBN-10: 0-321-49362-1.

4. **TENTATIVE COURSE TOPICS** (The actual schedule is not presented here. The material to be covered each week will be determined as the term progresses. Some topics may be omitted or abbreviated if necessary.
    i. Overview of the course
    ii. Program structure: syntax and semantics; lexical and syntactic analysis
    iii. Names, bindings, types, and scopes
    iv. Variables and expressions
    v. Program flow and control structures
    vi. Object oriented concepts
    vii. Non-traditional programming languages
    viii. Examples of programming languages

5. **COURSE ORGANIZATION:** The course is divided into two components. The **first** portion will consist of lectures and will involve a **midterm test**; the test will be held during a regularly scheduled class period; the date will be announced at least a week in advance. The **second** portion consists of a group project. The class time after the midterm will include both lectures by the instructor and presentations by project groups each week on a schedule to be announced later. A **final examination** will cover material from both lectures and from group presentations. **Both** the midterm test and the final examination will be **closed book**.

6. **ASSIGNMENTS:** Readings will be assigned out of the textbook. There will be several short assignments based on the readings.

7. **PROJECT:** More details will be available on the group project later in the term. Groups will be organized, each consisting of several students. Each group will learn an assigned programming language, select and program an example application using this language, give an in-class presentation, and submit a report that provides an language overview (using the group's application for illustrative examples) and a language evaluation.

8. **MARKING:** Course assignments, announced during class, will be marked and returned. As described above, there will be a **midterm test** and a **final examination**. The midterm test and final examination will be **closed book**. A portion of each class will be normally be devoted to a discussion of the previous class and assigned readings. Students are expected to participate in the discussion and raise appropriate questions. There will be several separately marked components of the group project.

9. **WEIGHTING OF MARKS:**
   a. Assignments: 10%
   b. Midterm Test: 30%
   c. Final Examination   20%
   d. Project Presentation   10%
   e. Language Overview   10%
   f. Example Application (including demo) 10%
   g. Language evaluation   10%

10. **MARKING OF GROUP PROJECTS:** I reserve the right to penalize students who do not attend group presentations. If deemed necessary, up to 10% of the total course grade will be for attendance during group presentations, with the remainder of the total course grade apportioned as indicated above

11. **LETTER MARKS:** Letter mark requirements will not be higher than:

A+	95%	A	90%	A-	85%	B+	80%	B	75%	B-	70%
C+	65%	C	60%	D	55%	F below 55%					

12. **PLAGIARISM:** An important part of University study involves developing the ability to think for yourself and to accurately describe your own ideas in writing. When submitting a written assignment that describes both your own ideas and the relationship of your ideas to the work of others, it is absolutely required that the written work **clearly distinguish** between your ideas and those of others, and to give **references** when **using the ideas of others** so that a reader can find the original source of those ideas. In addition, if using the **exact words** of another author, **quotation marks or one of the other standard methods for distinguishing the original authors words from your own words** must be used. Submitting a written assignment that fails to observe either of these criteria is known as the offence of plagiarism. As per the request of the Faculty Senate, attached to this outline is a brief statement of the University regulations regarding this offence. These regulations will apply to all written material submitted for this course, both assignments and examinations.

A. PLAGIARISM (from pages 44-45 of 2005-2006 Undergraduate Calendar)

Plagiarism includes:
1. quoting verbatim or almost verbatim from a source (such as copyrighted material, notes, letters, business entries, computer materials, etc.) without acknowledgment;

2. adopting someone else's line of thought, argument, arrangement, or supporting evidence (such as, for example, statistics, bibliographies, etc.) without indicating such dependence;

3. submitting someone else's work, in whatever form (film, workbook, artwork, computer materials, etc.) without acknowledgment;

4. knowingly representing as one's own work any idea of another.

NOTE: In courses which include group work, the instructor must define and warn against plagiarism in group work. Unless an act of plagiarism is identified clearly with an individual student or students, a penalty may be imposed on all members of the group.

Penalties for Deliberate Plagiarism

In a case of deliberate plagiarism, the penalties are:

First Offence: If the student does not appeal, or if, on appeal, the Committee upholds the instructor's decision:
1. A notation will be placed on the student's transcript of academic record concerning the academic offence. The length of time the notation appears on the student's transcript of academic record is to be decided when the penalty is imposed and will depend on the severity of the offence.

2. The student may be required to submit a satisfactory and genuine piece of work to replace the one involving plagiarism. If the assignment is not resubmitted or is unsatisfactory, the student will receive a grade of F (zero) in the course. NOTE: If this penalty is assessed, the period of time allowed for the submission of the work will be determined by the Registrar in consultation with the faculty member making the charge, and, where appropriate, the Committee.

3. The student will receive a grade of F (zero) on the piece of work and, depending on the severity of the offence, may receive a grade of F for the course.

4. Other penalties as outlined in penalties for Other Academic Offences may be imposed.

Subsequent Offence: In cases where the Committee considers that the student has plagiarized again:
1. The student will receive a grade of F in the course and a notation of the academic offence will appear on the student's transcript of record. The length of time the notation appears on the student's transcript of academic record is to be decided when the penalty is imposed.

2. Other penalties as outlined in penalties for Other Academic Offence may be imposed.

For further information on procedures for dealing with cases of plagiarism, students should refer to the regulations found on pages 44-45 of the 2005-2006 *Undergraduate Calendar*.