

COSC 2P91: Procedural Programming

Course Outline

Preliminaries

Course Title: COSC 2P91: Procedural Programming

Term: Winter 2012 (January – April)

Lectures Times: Thursdays 7:00 – 10:00PM, Jan 12 – April 5, 2012

Lecture Location: GL 164

Midterm Exam: February 16, 2012, during class.

Final Exam: TBA by the Registrar's Office

Reading Week: February 20 – 24, 2012

Instructor: Robert J. Teather (rteather <at> cosc <dot> brocku <dot> ca)

Office Hours: Thursdays, 5:45 – 6:45pm, or by appointment in MCJ304

TA/Marker: Martin Derka (md10tq <at> brocku <dot> ca)

Course Web Site: <http://www.cosc.brocku.ca/offerings/cosc2p91/>

Brock Calendar Description

Programming in procedural languages including procedures and functions, data representation, control structures and program organization. Procedural languages such as Ada, C and COBOL.

Practical Course Description

This course covers both the theory and practice of procedural programming. Lectures primarily cover the theoretical concepts behind procedural programming, how it has evolved over time, similarities with other programming paradigms, commonalities between all procedural languages, etc. Assignments primarily cover the practical nature of procedural programming and involve writing programs in the C programming language and potentially minor UNIX shell scripting. **Note that this is *NOT* exclusively a course on C programming**, and tests will mainly draw from the theoretical concepts presented in lecture.

Prerequisites:

COSC 1P03 (minimum 60 percent). Completion of COSC 2P03 is also strongly recommended.

Textbooks:

Required: None

Recommended/Supplementary:

- Behrouz A. Forouzan and Richard F. Gilberg. Computer Science: A Structured Programming Approach Using C, 3rd edition. Course Technology 2005. ISBN: 0-534-49132-4.
- Henri E. Bal, Dick Grune: Programming Language Essentials. Addison-Wesley 1994. ISBN 0-201-631179-2
- Kenneth C. Louden: Programming Languages: Principles and Practice. Brooks/Cole 1993. ISBN 0-534-93277-0
- Brian W. Kernighan and Dennis M. Ritchie. The C Programming Language, 2nd Ed. Prentice Hall, 1988. ISBN 0-13-110362-8
- Various WWW pages – will be linked from main course web page as relevant

Grading

Item	Number	Weight
Assignments:	4	30%
Mid-term:	1	25%
Final Exam:	1	45%
Total:		100%

Assignment Due Dates & Weights

Assn.	Due Date	Late Date	Weight
A1	Feb. 3	Feb 6	5%
A2	Feb 24	Feb 27	7.5%
A3	March 16	March 19	7.5%
A4	April 6	April 9	10%

Notes:

1. The lecture slides posted on the course website represent only part of what is discussed in class. All material discussed in class is eligible for examination, hence note-taking is critical.
2. All assignments are due at **3:00PM** on the due date, unless explicitly stated otherwise.
3. The penalty of a late assignment submission is **25%**. No mark will be given for assignment submitted past the late due date. See tentative dates (subject to change during the course).
4. A computerized plagiarism detection system (i.e., MOSS) **will** be used on submitted assignments.
5. All remarking requests must be submitted in writing with a Re-Mark Request Form within 1 week of receiving your grade. Remark requests after this timeframe will be ignored.
6. The grading of tests and assignments will reflect not only the content of your answers but also the quality of your writing.
7. The mid-term will be held during lecture time.
8. Test questions may include essay-style questions that ask you to extrapolate *beyond* verbatim memorization/recitation of class materials.
9. All exams are *closed-book*. Crib sheets, calculators and electronic dictionaries are **NOT** allowed unless otherwise stated. Use of unauthorized aids will yield a grade of 0 on the exam.
10. A mark of at least **40%** on the final exam is required to achieve a passing grade in this course.
11. If you miss a deadline due to medical reasons, you must complete the [Student Medical Certificate](#) **within 3 business days** of the missed deadline. No exception will be permitted without a valid and documented reason (e.g., serious illness or death in the family).
12. If you require academic accommodations related to a disability, contact the Student Development Centre, [Services for Students with disABILITIES](#) (4th floor Schmon Tower ext. 3240) and discuss accommodation(s) with the instructor.
13. Familiarize yourself with the various departmental Policies and Procedures.

Academic Integrity and Plagiarism

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. To this end, plagiarism will not be tolerated in this course.

All students must become familiar with the departmental policy and the university policy on academic misconduct. All plagiarism incidents will be reported and penalized in accordance with the departmental and university policies. Note that the Computer Science Department views on plagiarism may be more severe than in other disciplines. The minimum penalty is typically a 0 on the piece of work in question, up to and including received a failing grade in the course. Penalties also include a transcript note, and can include suspension or expulsion from the university.

News, Updates, and Correspondence

All correspondence to students is emailed to the Badger email accounts of students who are registered in the course. It is vital that you activate your Badger account and check it for messages regularly. The news page will contain announcements, corrections, and updates. Students are responsible for checking the news page regularly.

Proposed Schedule of Course Topics

Following is a proposed list of course topics, as well as the tentative schedule for the course. Note that the timing of individual topics is subject to change. Topics may also vary slightly.

Week		Topic	Work due
#	Date		
1	Jan. 12	Introduction & Programming Languages	
2 - 3	Jan. 19 – Jan. 26	Introduction to C Programming: Overview of C, Basic Types, Operators, Expressions, Repetition, Selection, Arrays, Basic I/O	
4	Feb. 2	Procedural Language Data Types, Testing	<i>Assn. 1 – Feb 3.</i>
5	Feb. 9	Formatted I/O, C Text Files	
6	Feb. 16	System State, Flow of Control	<i>Midterm – Feb. 16 Assn. 2 – Feb. 24</i>
7 - 8	March 1 – March 8	Pointers, Memory Allocation, Structures	<i>Assn. 3 – March 16</i>
9	March 15	Binary Files	
10 - 11	March 22 – March 29	UNIX shell, shell scripting, testing with shell scripts	
12	April 5	Review	<i>Assn. 4 – April 6</i>