COMPSCI 1XC3 - C01,C03
Computer Science Practice and Experience: Development Basics

Course Outline

Winter 2015

ADMINISTRATIVE DETAILS

Instructor: Yingying Wang
Email: wang840 at mcmaster dot ca
Office: ITB 130
Website: Avenue
Lecture: Wednesday, Friday, 9:30~10:20 AM @ KTH B135
Lab: L01 Wednesday, Friday, 12:30PM - 2:20PM @ ETB 118
                L02 Monday, Wednesday, 4:30PM - 6:20PM @ ETB 118
                L03 Tuesday, Thursday, 8:30AM - 10:20AM @ ETB 118
                L04 Tuesday, Thursday, 12:30PM - 2:20PM @ ETB 118
Office Hours: Friday 10:30 AM - 12:00 PM @ ITB 130 drop in, or by appointment

TAs
TA1 Qixuan Zhong
Email: zhongq7 at mcmaster.ca - leading L01
Office hour: Wednesday 2:30pm - 4:30pm

TA2 Tony Lin
Email: lint50 at mcmaster.ca - leading L02
Office hour: Monday 2:30pm - 4:30pm

TA3 Zhengwei (Wayne) Guo
Email: guoz88 at mcmaster.ca - leading L03
Office hour: Thursday 10:30am -12:30pm

TA4 Kumar Harshavardhan Jha
Email: jhak1 at mcmaster.ca - leading L04
Office hour: Wednesday 2:30pm-4:30pm

TA5 Jia Chen - grading
Email: chenj674 at mcmaster.ca

COURSE OBJECTIVES

From this course, students will learn the fundamental skills for software development. By the end of the course, students will learn the knowledge of :

1. using unix/linux command lines to perform basic tasks such as direction navigation, file operation, Process Management, System Information, Compression & Archiving, and etc.;
2. writing shell script;
3. C programming language, from fundamental data type to advanced structure and memory allocation;
4. organizing, compiling, running and debugging C projects;
5. version control for software development;
6. Using Git commands and GitHub for project management.

BOOKS (Non-mandatory)

Book Name: The Linux Command Line: A Complete Introduction (2nd Edition)
ISBN: 978-1593279523
Authors: William Shotts
Publisher: No Starch Press, Inc.
Price: 54 CAD

Book Name: The C Programming Language
ISBN: 978-0131103627
Authors: Dennis Ritchie and Brian Kernighan
Publisher: Pearson
Price: 78 CAD

Book Name: Pro Git
ISBN: 978-1484200773
Authors: Scott Chacon and Ben Straub
Publisher: Apress
Price: 85 CAD

Note: none of these listed books are mandatory textbooks.

COURSE OVERVIEW AND ASSESSMENT

Course Topics include:
- UNIX/LINUX: Commands of Directory Navigation, File Operation, Process Management, System Information, Compression & Archiving, Networking, Redirection, Environment Variable, Vim and Shell Programming
- C Programming: Variables, Data Types, Operation, Expressions, Control Flow, Functions, Program Structure, Memory, Pointers, Arrays, Struct, Input Output, Data Structures, Testing, Debugging
- Git: Basic Commands for maintaining Repositories, Branch Management, GitHub

Note: instructors may make minor adjustments to the listed course topics depending on the schedule.

Assessment		
Assignments (4 assignments)	Quizzes / Mini-exams (5 quizzes)	Final Exam (cumulative)
35%	35%	30%

Assignment 35% Breakdown				
Assignment 1	Assignment 2	Assignment 3	Assignment 4	Total
5%	10%	10%	10%	35%
Other Policy	- Late work will **NOT** be accepted without MSAF or SAS. - Requesting MSAF for assignments will receive extended days for completion. No credit transfer. - Requests for re-grading must be submitted within one week of the release of the assignment grades. - Turnitin may be used for assignments. Please refer to AUTHENTICITY / PLAGIARISM DETECTION section.			

COURSE OUTLINE – APPROVED ADVISORY STATEMENTS

ACADEMIC INTEGRITY
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. **It is your responsibility to understand what constitutes academic dishonesty.**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at
https://secretariat.mcmaster.ca/university-policies-proceduresguidelines/

The following illustrates only three forms of academic dishonesty:
   • plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
   • improper collaboration in group work.
   • copying or using unauthorized aids in tests and examinations.

AUTHENTICITY / PLAGIARISM DETECTION
Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. Avenue to Learn, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. **All submitted work is subject to normal verification that standards of academic integrity have been upheld** (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ON-LINE ELEMENT
Some courses may use on-line elements (e.g. e-mail, Avenue to Learn, LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

ONLINE PROCTORING
Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

CONDUCT EXPECTATIONS
As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the Code of Student Rights & Responsibilities (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES
Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's Academic Accommodation of Students with Disabilities policy.

REQUESTS FOR RELIEF FOR MISSED ACADEMIC TERM WORK
In the event of an absence for medical or other reasons, students should review and follow the Policy on Requests for Relief for Missed Academic Term Work.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)
Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING
Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

EXTREME CIRCUMSTANCES
The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be

communicated through regular McMaster communication channels, such as McMaster Daily News, Avenue to Learn and/or McMaster email.