BIT 1400 A (0.5 credit)
Introduction to Programming
Summer 2017

Instructor:	Ali Arya
Office:	CB-4202
Office Hours:	Monday (2:00 to 4:00 p.m. through cuLearn Chat or Skype) or by appointment
Lecture:	Not Applicable (Online)
Location:	Not Applicable (Online)
Tutorial:	Not Applicable (Online)
Location:	Not Applicable (Online)
Contact:	Email arya@carleton.ca, Skype raminarya

Course Description

Introduction to basic concepts of algorithm design and computer programming in C/C++. Topics include computer architecture, algorithms and pseudocode, basic operators, variables and functions, program control with iteration and conditionals, I/O operations, text processing, structures, arrays, pointers, and debugging. This course is fully online and has no physical attendance or seated exam.

Course Objectives:

1. Review computer architecture and how programs work
2. Develop the "algorithmic thinking" ability
3. Learn the basic concepts of program design through various tools from flow charts to integrated development environments
4. Familiarize with C language and structured programming
5. Get started with graphics programming

Reference Material:

- Starting Out with C++: From Control Structures through Objects. Tony Gaddis. 2012
- Lecture notes
- Additional materials may be assigned on certain topics

Grading:

Grading Component	%
Midterm Exam	20
Final Exam	30
Assignments	30
Final Project	15
Class Participation (reflection and discussion)	5

Special Rules:
- Students must achieve a minimum grade of 50% on the final exam and a minimum grade of 50% on the assignments component to pass the course.
  - If student has received 60% or more in both midterm and assignment/project portions, the 50% requirement for final exam may be lowered to 40%.
- Active participation in discussions has up to 2 points, and 8 reflections have 1 point each. Students are required to collect up to 5 of these 10 possible poins.
- Late submission of assignments will result in 25% penalty per day. No submission will be accepted after the cut-off date (end of a 3-day period from due date).
- Any submission that cannot be opened, compiled or executed, for any reason, will result in a zero mark.
- The above rules apply unless specifically mentioned otherwise in a particular case.

Class Schedule, Projects and Assignments.

Week	Starting Date	Modules	Assignment Due (All given the week before they are due)
1	May 1	- M1: Introduction - M2: Visual Programming	Only Reflection M1 (on May 7)
2	May 8	M3: Algorithm Design	Assignment M2 (on May 12)
3	May 15	M4: Getting Started with C	Assignment M3 (on May 19)
4	May 22	M5: Functions	Assignment M4 (on May 26)
5	May 29	- Midterm Exam (May 29) - M6: Structures	Assignment M5 (on June 2)
6	June 5	M7: Arrays	Assignment M6 (on June 9)
7	June 12	M8: Pointers, Files, and Text	Assignment M7 (on June 16)
8	June 19	Final Exam (June 22)	Final Project (due June 25)

Note:
- While every attempt will be made to keep to the schedule listed above, circumstances may necessitate modifications throughout the semester.
- Assignments are given on Fridays and will be due next Friday. Reflections are due 2 days after the related assignment.
- The midterm and final exams are fully online through cuLearn. The exams will be available for 48 hours to make sure students can access them. The exams can start at any time during that period, but after it starts (accessed) by a student, it will have to be submitted within the specified time (2 hours for midterm, 3 hours for final).

Inability to Complete an Assignment or Write the Midterm due to Illness

Students who are not able to contribute to a group project, submit an individual assignment, or write the midterm exam due to a certified illness will have the weight of the assignment/exam added to their final examination, upon provision of the appropriate documentation at least two weeks before the final

examination. Other arrangements (such as extended deadline or alternative assignments/exams) may be possible upon the request from student and approval by the instructor.

While every attempt will be made to keep to the schedule listed above, circumstances may necessitate modifications throughout the semester
Otherwise, please refer to
http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/ and
http://calendar.carleton.ca/undergrad/regulations/academicregulationsandrequirementsforthebachelorofinformationtechnologydegree/

Group work

Carleton School of Information Technology encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, follower-ship and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one. Due to the nature of this course and the need for development of individual skills, all assignments and tasks in this course are individual unless explicitly specified otherwise by the instructor. The only exception is the final project which can be done in groups as long as (1) all group members have equal share in programming tasks, and (2) the group size and structure is approved by the instructor based on the project goals.

Medical certificate

Please note that in all occasions that call for a medical certificate you must use or furnish the information demanded in the standard university form. http://www1.carleton.ca/registrar/forms/

Persons with disabilities

Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities could include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC, 613-520-6608, every term to ensure that I receive your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by the deadlines published on the **PMC website**. (http://www.carleton.ca/pmc/)

Religious observance
Students requesting academic accommodation on the basis of religious observance should make a formal, written request to the instructor for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible

after the need for accommodation is known to exist, but no later than two weeks before the compulsory academic event. Accommodation is to be worked out directly and on an individual basis between the student and the instructor. Instructor will make accommodations in a way that avoids academic disadvantage to the student. Students or instructors who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services website for a list of holy days and Carleton's Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance

Pregnancy

Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete a letter of accommodation. The student must then make an appointment to discuss her needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.

Plagiarism

The University Senate defines plagiarism in the regulations on instructional offenses as: "to use and pass off as one's own idea or product work of another without expressly giving credit to another." Borrowing someone else's answers, unauthorized possession of tests or answers to tests, or possession of material designed in answering exam questions, are also subject to university policy regarding instructional offences. For more information on Carleton University's Academic Integrity Policy, consult:
http://www1.carleton.ca/studentaffairs/academic-integrity/

Course Sharing Websites

Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

IMPORTANT DATES TO REMEMBER – Academic Year
https://calendar.carleton.ca/academicyear/