UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF COMPUTER SCIENCE
COURSE OUTLINE

1. **Course:** CPSC 231: Introduction to Computer Science for Computer Science Majors I
**Lecture Sections:**
L01, TR 13:00-15:45, James Tam, ICT 707, 210-9455, tam@ucalgary.ca
Office Hours: TR 16:00-16:30

**Course Website:** http://pages.cpsc.ucalgary.ca/~tamj/2017/231P/index.html

**Computer Science Department Office, ICT 602, 220-6015, cpsc@cpsc.ucalgary.ca**

2. **Prerequisites:** None.
(http://www.ucalgary.ca/pubs/calendar/current/computer-science.html#3620)

3. **Grading:** The University policy on grading and related matters is described in sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

| | |
|---|---|
| Assignments | 35% |
| Midterm Exams | 25% |
| *(In-Class Tuesday June 6th, 2017)* | |
| Final Exam | 40% |

This course **will** have a Registrar's Scheduled Final Exam.

Special Regulations affecting Final grade: Each component will be awarded a grade point from 0.0, 0.1, 0.2…4.0. Each term grade point will be multiplied by its weight. These values will be summed into the overall term grade point which will then be converted to one of the standard university letter grades. The student must pass the weighted examination component (midterm, final) in order to be awarded a grade of C- or higher in the course. If a student is awarded a higher grade on the final exam vs. the midterm, then the score for the final will replace the original midterm grade. (A similar swap will not occur however if the student is awarded a higher grade on the midterm vs. the final).

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar. Section 3.6. It is the student's responsibility to familiarize theirself with these regulations. See also Section E.6 of the University calendar.

5. **Scheduled Out-of-Class Activities:** REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME ACTIVITY. If you have a clash with this out-of-class activity, please inform your instructor as soon as possible so that alternative arrangements can be made.

6. **Course Materials:**
Starting Out with Python Third Edition, Tony Gaddis, Addison-Wesley (Recommended)

**Online Course Components:**
Course notes and other materials related to the course (Required)

7. **Examination Policy:** NO AIDS OF ANY SORT are allowed for the examinations. Additional details will be announced prior to the examinations. Students should also read the Calendar, Section G, on examinations.

8. **Approved Mandatory and Optional Course Supplemental Fees:** None.

9. **Writing across the Curriculum Statement:** In this course, the quality of the student's writing in the weighted components of the course will be a factor in the evaluation of these components. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:** Students will be expected to participate as subjects or participants in projects. See also Section E.5 of the University Calendar.

11. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

**a)** **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offense that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K, Student Misconduct to inform yourself of definitions, processes and penalties.

**b)** **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points which can be found in each classroom and building.

c) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf. Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Computer Science.

**d)** **Safewalk:** Campus Security will escort individuals day or night (http://www.ucalgary.ca/security/safewalk/). Call 403-220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

**e)** **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also http://www.ucalgary.ca/secretariat/privacy

**f)** **Student Union Information:** VP Academic (403) 220-3911 suvpaca@ucalgary.ca SU Faculty Rep (403) 220-3913 science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca, Student Ombuds Office: (403) 220-6420 ombuds@ucalgary.ca, http://ucalgary.ca/provost/students/ombuds

**g)** **Internet and Electronic Device Information:** You can assume that in all classes that you attend your cell phone should be turned off unless instructed otherwise. All communications with other individuals via laptop computers, cell phones or other devices connectable to the internet in not allowed during class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

**h)** **U.S.R.I.:** At the University of Calgary feedback provided by students through the Universal Student ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference – please participate in USRI surveys.

Department Approval_____ Date_____

Faculty Approval for
out of regular class-time activity: _____
Date:_____

Faculty Approval for
Alternate final examination arrangements: _____
Date:_____

*A signed copy of this document is on file in the Computer Science Main Office*

# CPSC 231 Syllabus

Tentative topics covered:

- Writing/translating/running Python programs
- Variables and constants
- Program documentation
- Keyboard input, console output
- Branching and decision making
- Loops and repetition
- Functions and program decomposition
- Text file input and output
- Composites: strings, lists and tuples
- Classes and objects
- Recursive functions
- Graphic programs

## Learning Outcomes:

By the end of the course, students will:

• Create basic classes in Python that contain a constructor, instance variables, and methods.
• Design and implement at least one small graphical application implemented using Python code.
• Write and run small Python procedural programs that contain assignment, conditional, and looping statements; arithmetic and Boolean expressions; functions and recursive functions; input and output handling; modules; use of appropriate data types.
• Read small procedural Python programs, identify any syntax and logic errors, identify the type(s) of data stored in specific variables and predict the result of running code.
• Develop debugging skills to systematically identify and fix syntax and logic errors in procedural code written by self and others.
• Perform basic testing of code written by self and others.

**Allowable Sources:**

Stated on individual assignment specifications.

**Cited Sources:**

Stated on individual assignment specifications.

**Level of Collaboration between Students:**

Stated on individual assignment specifications.

**Disclosure Policy**

Stated on individual assignment specifications.