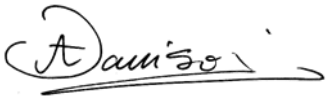
Approved by Chair:



Jan 13, 2020

Signature

COURSE SECTION INFORMATION

COMP 2152 Open Source Development

Teacher's Name:

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Out of Class Assistance

Course Code: COMP2152

Course Section

Academic Year: 2019-2020

Term: Winter 2020

LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:

Required:

1. Murach's Python Programming By Michael Urban and Joel Murach
   ISBN: 978-1-890774-97-4

Recommended Resources:

1. https://www.python.org/

Detailed Evaluation System

Assessment	Description	Outcomes assessed:	EES	Week	Weight
Lecture Quiz	The best **6** out of **8** quizzes will count.	1,2,6,7,9	1,2,3,4,5	TBA	9
Lab Test 3 x 4	Hands-On test	2,3,4,5,8,10,11	1,2,3,4,5,6,7,10	TBA	18
Lab exercises 8 x 1	Based on completion of lab tasks during lab classes. (AtKLass is used to record attendance)	2,3,4,5,8,10,11	1,2,3,4,5	TBA	8

Mid-term test	Mixed format test	1,2,3,6,7,8,11	1,2,4	7	20
Final test	Mixed format test	1,2,3,6,7,8,9,10	2,4,5	15	30
Assignment 1	Individual assignment	2,3,4,5,8,10,11	1,2,3,4,5,6,7,10,11	14	15
				TOTAL	**100%**

***TBA** the date and time will be announced at the beginning of the semester.

GRADING SYSTEM the passing grade for this course is: _D (50%) plus the average of the mid-term and the final exam must be equal or grader then 50.

Learning Schedule / Topical Outline (subject to change with notification)

TOPICAL OUTLINE:

WEEK	Topic	Content	Chapter/ Reference
1		- **Introduction to Python** - Zen of Python - PEP - How to use IDLE to develop programs - How to use PyCharm to develop programs - **Coding 101 in Python** - Basic coding skills - Test and debug a program - How to use five of the Python functions - Package and namespace	1,2,5
2		- **Coding Basics** - How to work with data types and variables - How to work with numeric data - **How to work with lists and tuples** - Basic skills for working with lists - How to work with a list of lists - How to work with tuples	5,6
3		- **How to code control statements** - How to code Boolean expressions - How to code the selection structure - How to use the iteration structure	3,4
4		- **How to work with string** - Accessing Strings - Basic Operations - String slices - Function and Methods - **How to work with dictionaries** - Introduction - Accessing values in dictionaries - Working with dictionaries - Dictionary properties & functions	2,10,12

5		- **How to work with recursion and algorithms**
		  - How recursion works in Python
		  - How to use recursion to add a range of numbers
			4,13

		- **How to define and use functions and modules** - How to define and use functions - How to create and use modules -	
6		- **How to work with file I/O** - Folder manipulation - An introduction to file I/O - How to use text files - How to use CSV files - How to use binary files	7
7		***MID-TERM EXAM***	
8		**Intersession Week**	
9		- **System Applications** - The sys module - The os module - The platform module - The subprocess module - Forking and piping - The socket module - **Exceptions** - How to handle a single exception - How to handle multiple exceptions - Standard error	8 and Lecture Notes
10/11		- **How to use Python to work with a database** - How to connect to a SQLite database - How to execute SELECT statements - How to get the rows in a result set - How to execute INSERT, UPDATE, and DELETE statements - How to test the database code - How to handle database exceptions	19
12		- **How to define and use your own classes** - An introduction to classes and objects - How to define a class - How to work with object composition - How to work with encapsulation	14
13		- **How to work with inheritance** - How to define a sub-class - Polymorphism - How to work with object composition - How to work with encapsulation **How to override object methods** - Special methods - Inheritance & special methods	8,15
14		- **Python AI and Machine learning** - **Exam Review**	
15		***FINAL EXAM***	
Please note: this schedule may change as resources and circumstances require. For information on withdrawing from this course without academic penalty, please refer to the College Academic Calendar: http://www.georgebrown.ca/Admin/Registr/PSCal.aspx			