COURSE SYLLABUS

COM410 Python

Course Description

Python is used in a variety of tasks in the computing industry, from automated scripts to graphical user interfaces. This course will introduce the Python language, as well as the versatile roles it can play in the computing industry. We will investigate topics such as: automation, data structures, and web development.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	30/20/60
Prerequisite(s)	COM290
Co-requisites (s)	N/A
Course Developer(s)	S. Nance, BA
Date Approved / Last Review	April 2007 / June 2014

Learning Outcomes

Upon successful completion of this course, students will be able to:

- Search for patterns in data sets and use the data in programs.
- Create Python scripts for a variety of tasks.
- Create regular expressions for text manipulation.
- Perform elementary data mining operations.

Instructional Methods Employed in this Course

Lecture and reading assignments
Hands-on exercises and labs
Research
Student presentations
Practical application of theory and skills in authentic projects
Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course

Textbook

Lutz, Mark. Learning Python, 3rd edition. O'Reilly, 2003. ISBN 13: 978-0596513986.

Other Materials

N/A

Drawing tools

N/A

Web Site Readings

www.python.org

rmi.net/~lutz/lp2e-updates.html

www.oreilly.com/catalog/lpython2/errata

Table/Topics & Assignments

Types of Assignments:
Lecture: Considered Lecture Hours
Classroom Discussion: Considered Lecture Hours
In Class Critique: Considered Lecture Hours
Delivering Oral Presentations: Considered Lecture Hours
In Class (IC) Exercise: Considered Lecture Hours
Reading: Considered Homework (HW), work done outside of class.
WebClass lesson (non-online courses): Considered HW, work done outside of class
Lab Work: Considered Lab Hours
Quiz, Midterm or Final: Considered Lecture Hours

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 1A	What Python looks like. Installing Python. Introduction to the interactice shell	3				
LAB 1A	Install Python		2			In class
HW 1A	Read chapters 1, 2, & 3 (55 pages). Evaluated in Project 1			5.5		
HW 1B	Project 1: Interactice shell operations			2		Week 2
Total Week 1		3	2	7.5	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 2A	Control statements. Functions	3				
LAB 2A	Exercise 2: creating functions and statements		2			In class
HW 2A	Read chapters 4, 9, 10, 12, 13, & 14 (156 pages). Evaluated in project 2			15.6		
HW 2B	Project 2: search and replace			1		Week 3
Total Week 2		3	2	16.6	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 3A	Modules	3				
LAB 3A	Exercise 3: incorporating modules		2			In class
HW 3A	Read chapters 15, 16, 17 ,& 18 (97 pages). Evaluated in project 3			9.7		

HW 3B	Project 3: Chapter 18 exercise 3			2		Week 4
Total Week 3		3	2	11.7	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 4A	Data structures: Lists, tuples, dictionaries	3				
LAB 4A	Exercise 4: manipulating arrays		2			In class
HW 4A	Read chapters 6 & 7 (38 pages).			3.8		
HW 4B	Project 4: Manipulate a dictionary			2		Week 5
Total Week 4		3	2	5.8	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 5A	Data structures: Sets, stacks, and queues	3				
LAB 5A	Exercise 5: Operate stacks and queues		2			In class
HW 5A	Project 5: Create an RPN calculator using a stack			4		Week 6
Total Week 5		3	2	4	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 6A	Input and output. Regular expressions	2				
LAB 6A	Exercise 56: Define regular expressions		2			In class
Exam 5A	Midterm exam	1			100	In class
HW 6A	Read chapters 8 & 27 (43 pages). Evaluated in project 6			4.3		
HW 6B	Project 6: Regex file search and replace			4		Week 7
Total Week 6		3	2	8.3	100	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Classes and OOP	2				
LAB 7A	Exercise 7: Defining classes		3			In class
HW 7A	Read chapters 19, 20, 21, 22, & 23 (93 pages). Evaluated in project 7			9.3		
HW 7B	Project 7: interacting classes			4		Week 8
Total Week 7		2	3	13.3	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Errors and exceptions	2				

LAB 8A	Exercise 8: exception handling control structures		3			In class
HW 8A	Read chapter 24 (33 pages). Evaluated in project 8			3.3		
HW 8B	Project 8: Parsing web data			8		Week 10
Total Week 8		2	3	11.3	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Standard library discussion	3				
LAB 9A	Using standard library features		2			In class
Total Week 9		3	2	0	0	

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 10A	Course review	3				
Exam 10A	Final exam	2			100	In class
Total Week 10		5	0	0	100	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1		3	2	7.5
2		3	2	16.6
3		3	2	11.7
4		3	2	5.8
5		3	2	4
6		3	2	8.3
7		2	3	13.3
8		2	3	11.3
9		3	2	0
10		5	0	0
Total		30	20	78.5

Table/Point Breakdown

Assignment Type	Possible Points	Percentage of Grade
Midterm	100	10%
Final	100	10%
projects	800	80%
Total	1000	100%

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0
60 or above	CR	0
59 or below	NC	0
N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend	
CR = Credit	NC = No Credit
I = Incomplete	W = Course Withdrawal
AU = Audit	TR = Transfer Credit
WV = Waiver	

Academic Accommodation / Adjustment Policy:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.