MIS 5400
Systems & Analytics Programming
Fall 2018

Instructor & Course Information:

Instructor:	McKelly Peart	Course Location:	DE 204
Phone:	(435) 512 - 8771	Course Time:	M 5:15 – 7:45p
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Office:	Online / Hangouts	Office Hours:	As Needed / Online

Introduction:

Welcome to MIS 5400! This course has been created to provide MIS students with programming skills that will enable them acquire, persist, and expose information through APIs and Web-Based GUI's. The class will focus on Python (3.7). The course is broken up into 2 main components 1) Python Fundamentals. 2) Applied Python (Project-Based). It is assumed that students coming into the course have at least a fundamental understanding of computers and programming concepts.

Required Materials

- ✓ Computer / Internet Access – All assignments will require the use of a computer which the user has access to install software on (Python). While some assignments may be done offline they are expected to be submitted via Canvas (http://canvas.usu.edu).
- ✓ *Think Python – How to Think Like a Computer Scientist* – This is an excellent "open source" book available for **free** online at http://www.greenteapress.com/thinkpython/thinkpython.pdf. It also has sample code and problems that may be used as assignments.

Course Approach:

MIS 5400 takes a hands-on approach; we will be doing homework that requires actual coding in Python. In addition - a general lecture format will provide students with high-level topics and information.

Grading:

Grading in this class is based on the percentages listed below. Each section of the course is allotted a percentage and that percentage is used to calculate your grade. Grades can also be calculated on a point-based system. A total of 1,000 points are available.

Exam	(1 @ 15% = 150 pts.)	15% or 150pts.
Projects	(1 @ 15 % = 150 pts.)	15% or 150pts.
Assignments	(12 @ 5 % = 600 pts.)	5% or 600 pts.
Career Acceleration	(1 @ 10% = 100 pts.)	5% or 100 pts.

A	A-	B+	B	B-	C+	C	C-	D+	D	F
≥93%	≥90%	≥87%	≥83%	≥80%	≥77%	≥73%	≥70%	≥67%	≥60%	<60%

Quizzes / Exams

There will be one exam covering the fundamentals of Python given mid-way through the course. The exam will be a mix of multiple choice and questions that require coding.

Assignments

Because actually writing code and using programming tools is the best way to learn, the majority of the course grade is based on 10 (11 assigned, lowest one dropped) homework assignments. All assignments are to be done individually.

Final Project

At the end of the course there will be one project due that will cover the second portion of the course (Applied Python). Students are encouraged to work in groups of up to 3 people on projects (no more than 3), but can also be done individually. The project also includes 2 assignments that are Project Milestone reports.

Late Work

The late policy for this class is this: 15% deducted for each late day. Homework assignments will be available for submission for 6 days following the due date.

Cheating:

There is no room whatsoever for cheating in this class. Anyone caught cheating in **any way** will at best receive a failing grade for the course and at worst will be kicked out of the university. We have no tolerance for cheating. What is cheating? Cheating may include (but is not limited to): plagiarizing the work of other students or material from the textbook, Web, or other sources; utilizing more resources than allowed while completing exams (including other students, books, the Web, or other materials); and, finally, turning in the work of another student (present or past) as your own work.

Tentative Schedule

Date	Module	Topic
8/29	1	Python Introduction
9/5	2	Python Object Types
9/12	3	Conditional Statements & Loops
9/19	4	Modules, Functions, & Exception Handling
9/26	5	Packages, Classes, & The Python Standard Library
10/3	6	PIP & 3rd Party Packages
10/10	Exam 1	Exam Review / Exam 1 – Python Fundamentals
10/17	7	Tools & Project Introductions
10/24	8	Data Persistence
10/31	9	Data Acquisition
11/7	10	API Programming (Flask)
11/14	11	UI Programming (Flask)
11/21	NA	Fall Break / NO CLASS
11/28	NA	Adding Value to Data / Deploying a Project
12/5	NA	In-Class Project Work Day
12/12	NA	In-Class Project Presentations