BUSA 423: Business Analytics Programming
Summer 2022

Instructor: Dr. Vinayaka Gude
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Location: 2066, 8750 NorthPark Central

Office Hours: Mondays: 9 - 11:30 AM (or by appointment).

COURSE INFORMATION

COVID-19 Related

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students' Rights and Responsibilities as a violation of the student Code of Conduct.

Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.

Required Textbooks

No required textbook.

Python Crash Course: A Hands-On, Project-Based Introduction to Programming
by Eric Matthes *ISBN-10: 1593276036 OR ISBN-13: 978-1593276034* (Recommended)

COURSE DESCRIPTION

This course is designed to introduce business analytics programming in Python to students. Students will learn programming foundations, application development in Python, and how to integrate Python applications with business operations in this class.

COURSE OBJECTIVES

Upon successfully completing this course, students will be able to "do something useful with Python".
- Identify/characterize/define a problem
- Design a program to solve the problem
- Devise comparable program designs
- Create executable code
- Read most Python code
- Write basic tests
- Be able to work in a team environment and come up with unified data analytics solution
- Show how one program can be executed in multiple ways

COB SLO-Course Objective Alignment

College of Business Student Learning Outcomes:
1. Students will demonstrate proficiency in spoken communications by delivering clear and well-structured business presentations.
2. Students will demonstrate proficiency in written communications by creating clear and well-structured business documents.
3. Students will identify and evaluate ethical business issues.
4. Students will identify and evaluate global business challenges.
5. Students will be analytical problem solvers in business environments.

COB STUDENT LEARNING OUTCOMES (SLOS)	COURSE OUTCOMES - AFTER SUCCESSFULLY COMPLETING THIS COURSE, STUDENTS WILL BE ABLE TO:	MEASUREMENT METHODS (OUTCOME ASSESSMENTS)
2, 5	• Understand programming principles and best practices to develop business applications. • Apply programming concepts to solve business problems. • Communicate technical information (*data, models, and results)* in the form of visualizations.	• Programming projects • Assignments

GRADING

Case Study

Assignments (A Maximum of 60 Points)
- A total of 6 assignments will be posted on the course page covering all the topics throughout the course each carrying 10 points.
- The purpose of the assignments is student learning, rather than student testing.

Projects (A Maximum of 40 Points)
- 2 projects will be given during the semester. You can get a maximum of 20 points for the first project, and 30 for the next.
- Please note: Projects are very important to your final grade! Please be sure to complete and submit every project by the deadline.

Final Grade

At the end of this semester, if your total is between 90 and 100, you will get an A; if it's between 80 and 89, you will get a B, and so on. **Please note that the actual points will be used to calculate your final grade.** No curving will be used in this class.

Points	Grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

TECHNOLOGY REQUIREMENTS

You will need to install Python and a suitable editor (Anaconda).

COMMUNICATION AND SUPPORT

If you ask me questions by emails, I will reply within 48 hours. However, I usually answer them much faster.
If you have questions about software operations, please make sure to include the screenshots of the issues in the emails.
All assignment due dates, deadlines, and exam time are central time in the United States.

COURSE AND UNIVERSITY POLICIES

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that

provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).*

Campus Concealed Carry

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have

been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to ((http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE REQUIREMENTS

The course is AN ONLINE COURSE with Student Responsibilities or Tips for Success in the Course. You are responsible for reviewing all announcements within the course announcements pages, logging on at least 3 times a week, having and responding to all emails, and completing assignments on time, and attending or listening to recorded lectures early in the week. Failure to do these items will adversely affect your grade.

Examples include: Regularly logging into the course website, amount of weekly study and participation time expected, etc.

Please use these tips to be successful.

1. Get the textbook. The textbook will be part of all assignments and you will have to reference specific page numbers.
2. Review all the announcements. Check email daily for any feedback I will provide. However, the email will direct you to further information.
3. Please note due dates are generally Sundays but NOT during the final week.

I anticipate that we will follow the schedule I've outlined in this syllabus, but I may make an adjustment based on what actually happens in the course. I may also change the basis for the course grade (if I need to eliminate an assignment or something of that nature). If I do so, I will so inform you in writing. Remaining in the course after reading this syllabus will signal that you accept the possibility of changes and responsibility for being aware of them.

TENTATIVE COURSE OUTLINE

Module	Topic(s)	Tasks
1	Introduction and software installation	
2	Loops	Assignment 1 (01/31/22)
	Data types	
3	Classes	Assignment 2 (02/07/22)
	Functions	
4	Exceptions	Assignment 3 (02/14/22)
	Data Structures	
5	Data Analytics	Assignment 4 (02/21/22)
	Data Visualization	
6	Applications: Time Series Analysis	
	Applications: Cluster Analysis	
7	Applications: Web App development	Project 1 (02/28/22)
	Applications: Machine Learning	
8	Applications: Advanced Applications	Project 2 (03/07/22)