



BUSA 423: Business Analytics Programming

Instructor: Dr. Zaki Malik

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Please use emails to ask me questions, and use BUSA-423 in the subject line of the email. This is the fastest way to reach me.

Office Hours: Thursday 8.30AM – 12.30PM and 2PM – 3.30PM in Dallas (or online; Zoom Link posted in D2L)

COURSE INFORMATION

Course Modality

- This course is designated as online. All course materials and video recordings of the lectures will be available through D2L.

Textbook (NONE Required)

Python is open-source, and you can use any free book you can find online. However, if you ask me, the following is a very good resource.

Python Crash Course: A Hands-On, Project-Based Introduction to Programming

by Eric Matthews

ISBN-10: 1593276036 OR ISBN-13: 978-1593276034

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
- Create executable code

- Read most Python code
- Write basic tests

GRADING

Labs (A Maximum of 40 Points)

A number of labs will be given during the semester (almost every class). The labs will be handed out in-class and are usually due at the end of the class (or at the end of the day – instructor discretion). The purpose of the labs is student learning, rather than student testing.

Project or Exam (A Maximum of 60 Points)

2 projects/exams will be given during the semester. You can get a maximum of 25 points for the first project, and 35 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. Install within the first couple of days !!! We will use Jupyter/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**

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*).

AI use policy

You can use AI as a learning resource. Do NOT have it write code for you. You will NOT learn this way. If you do seek help from AI, make sure you understand ALL lines of code. Your final exam score will depend highly on your understanding, and not merely completing the code.

TENTATIVE COURSE OUTLINE

Week	Topic(s)	Chapter
1	Class Introduction Getting Started / Software Installation	Chapter 1
2	Variables	Chapter 2
3	Lists Working with Lists & for Loop	Chapter 3 Chapter 4
4	If Statements	Chapter 5
5	Dictionaries	Chapter 6
6	User Input and while Loop	Chapter 7
7	Functions	Chapter 8
8	Classes	Chapter 9
9	Files and Exceptions	Chapter 10
10	Data Visualization	Chapter 15-17
11	Introduction to Data Analytics in Python	Notes
12	Data Analytics in Python: Linear Regression	Notes
13	Data Analytics in Python: Time Series Analysis	Notes
14	Data Analytics in Python: Cluster Analysis	Notes
15	Project	Comprehensive