

Intro Data Visualization & Analytics



**LAMAR INSTITUTE
OF TECHNOLOGY**

CREDIT

3 Semester Credit Hours (2 hours lecture, 3 hours lab)

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

There are no Prerequisite/Co-requisites for this course

COURSE DESCRIPTION

This course introduces basic concepts of data visualization, reporting and applications of analytics. Topics include concepts and methods used in graphical representation of data, exploration and reporting of data. Also overview of analytical process and basic understanding of analytics for decision-making will be covered.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to

1. Design effective data visualizations in order to provide new insights into a research question or communicate information to the viewer.
2. Find and select appropriate data that can be used in order to create a visualization that answers a particular research question.
3. Properly document and organize data and visualizations in order to prepare them for reuse.

INSTRUCTOR CONTACT INFORMATION

Instructor: Ashley Arevalo

Email: amarevalo@lit.edu

Office Location: Virtual

Office Hours: Virtual

REQUIRED TEXTBOOK AND MATERIALS

Python for Data Analysis by Wes McKinney (Author)

ISBN-13: 9781098104030



REQUIRED
Python for Data Analysis (Paperback)
By: McKinney, Wes
Edition: 3RD 22
Publisher: INGRAM PUB
ISBN 13: 9781098104030

PARTICIPATION POLICY

There is expected participation on your part to be in this online course.

In practical terms, that means:

- Logging in regularly (daily or several times a week).
- Understanding course instructions
- Reading course materials
- Reading ALL announcements. It is how the instructor communicates with you.
- Submitting assignments and quizzes on time.

Blackboard can log things like:

- **Time spent** in the course.
- **Number of clicks** or page views.
- **Assignment submissions.**

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar. If you stop completing the assignments and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16- week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR		
	TOPIC	LAST DAY TO ACCEPT LATE WORK on this Date
Week -1	Syllabus, Meet your Instructor and Blackboard Navigation, Introduction Lab 0	1/23/26
Week – 2	CP -1 and Lab -1	1/26/26
Week – 3	CP -2 and Lab -2	2/5/26
Week – 4	CP -3 and Lab -3	2/12/26
Week – 5	CP -4 and Lab -4	2/19/26
Week - 6	CP -5 and Lab -5	2/26/26
Week -7 & 8	CP -6 and Lab -6	3/5/26
SPRING BREAK MARCH 9-13		
Week – 9 & 10	CP -7 and Lab -7	3/26/26
Week – 11 & 12	CP -8 and Lab -8	4/9/26
Week – 13 & 14	CP -9 and Lab -9	4/23/26
Week – 15 & 16	Final Project	5/7/26

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Assignments (9 assignments) 90%
- Final Project 10%

GRADING SCALE

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or Wi-Fi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

AI STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into the classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

1. Students should log onto Blackboard and access this course every day to keep on track with assignments. And do the assignments by each due date so it does not become overwhelming to stay behind. Once a due date is passed a zero will be automatically assigned in Blackboard.
2. You are responsible for your Wi-Fi and appropriate computer to complete this course. Not a course to be completed on your phone.
3. Internet Usage – Students are expected to use proper net etiquette while participating in course emails, assignment submissions, and online discussions.
4. Students should turn assignments in by the posted due date and time. **Late work is accepted until one week for each assignment, but not encouraged.**
5. If you wish to drop a course, the student is responsible for initiating and completing the drop process before the date stated in the LIT Academic Calendar. If you stop completing course work and fail to drop the course, you will earn an 'F' in the course.
6. Grades will be posted under the Grades icon on the class gradebook.

7. If you need to contact the instructor, my LIT e-mail is **amarevalo@lit.edu**. Your e-mail will be answered within 48 hours Monday – Thursday and within 72 hours Friday - Sunday. Be sure to include specific details, which chapter, assignment, and question you are working on. It is always extra helpful if you can include screenshots so I can see what you are referring to.
8. All assignments will be completed using the link in Blackboard. Assignments CANNOT be submitted via email. All due dates will be posted in Blackboard with each assignment.
9. **ABSOLUTELY NO ASSIGNMENTS WILL BE REOPENED.** I strongly encourage you to complete all work well in advance of the Due Date, so you don't miss anything.
10. It is not my practice to give Incompletes, except for extreme circumstances and you must have successfully completed at least 90% of the course. Only assignments in the final unit will be re-opened if an incomplete is granted.