

DATN1370
Intro to Data Visualization and Analytics



CLASS SYLLABUS

Professor Contact Information

Professor: Dr. Leezet Llorance

Email: leezet.m.llorance@lonestar.edu

Phone:

Office Location: Hybrid, Tues/Thurs EMI

Student Hours: by appointment, virtual / Webex or in-person

Website / Other Contact:

Welcome to DATN1370

Course Title: DATN1370 6301/6302

Course Subject: Intro to Data Visualization

Course Section: 12817/12818

Classroom Location: virtual D2L

Semester and Year: Fall 2025

Class Days and Times: asynchronous - no scheduled meetings will be required

Course Overview

Credit Hours: 3

Contact Hours: 80.0

Prerequisite: None

Corequisite: None

Lecture Hours: 32

Lab Hours: 48

Catalog 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.

Student Learning Outcomes

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

In our efforts to prepare students for a changing world, students may be expected to utilize computer technology while enrolled in classes, certificate, and/or degree programs within LSCS. The specific requirements are identified in the following list.

- Access to a personal computer with a current, updated operating system, (Windows 10/11 or MacOS.)
- Chrome or Firefox web browser must be installed to complete course assignments.
- Tableau Data Prep and Tableau Desktop must also be installed. A free student license key will be distributed to enable free student use.

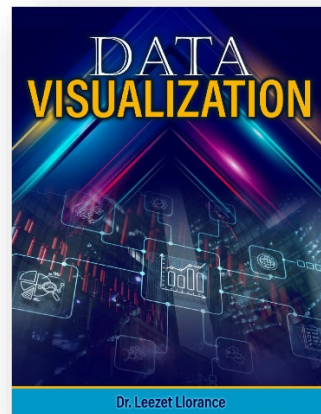
Required Materials

Data Visualization

Author: Leezet Llorance, Doctress of Education

ISBN 9798385174201

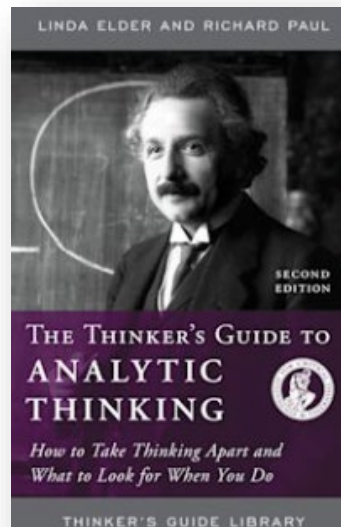
Order directly from the publisher. [Order Online Here.](#))



The Thinker's Guide to Analytic Thinking

Linda Elder (By) , Richard Paul (By)

Order directly from the publisher,
[Order Online Here](#)



Professor Guidelines and Policies

Attendance

(Applicable to onsite class sessions and synchronous online class sessions only.)

Regular attendance is expected in order for students to successfully complete the course objectives; this includes actively logging into the course and class session participation (10% of course grade).

With **four (4) class absences**, or the equivalent of two weeks, the professor has the right to drop you from the course for excessive absences.

“If you are dropped from a class for non-attendance after the Official Day of Record, published in each academic calendar, **you will not be reinstated to the class**. An advisor will assist you to enroll in a late start course to increase your student success. Please monitor your account and courses accordingly so that you can catch any mistakes immediately. Please report any discrepancies to your faculty or the Department Chair, listed in the syllabus.”

Communication

The best way to reach me is to send an email (Leezet.m.llorance@lonestar.edu).

Late Work

Late work is not accepted. Any assignment not submitted by the due date will receive a 0 grade, unless prior arrangements are approved by the professor.

Make-up Assessments

Students must contact the professor prior to missing a scheduled examination. An opportunity to take a makeup examination will be offered to those who make prior contact with the professor. Make-up exams may be administered in Lone Star campus assessment centers.

Cell Phones and Computers: (Applicable to onsite class sessions and synchronous online class sessions only.)

Cell phones must be muted during class sessions and not visible in the classroom (i.e., placed in a backpack, purse, etc.)

Academic Integrity and Dishonesty

Students must submit their own original work. Students who submit plagiarized work will earn a 0 on that assignment and risk further consequences as outlined in the Lone Star College Academic Dishonesty policy.

<https://www.lonestar.edu/instructional-resources.htm>

Grade Determination

Lab

Data Analytics projects using Tableau software. Each weekly lab assignment is worth 100 points.

Participation


Weekly projects involving assigned reading topics. Activities may include peer discussions, short quiz, reflection essays or short presentations. Each weekly participation assignment is worth 100 points.

Your grade will be determined by the following	Summary	Percent of Final Average
Labs	Tableau and Microsoft Power BI labs	40
Analysis	Storytelling on Data Visualizations	40
Quizzes	Critical Thinking	10
Attendance		10
Total:		100


Letter Grade Assignment

Letter Grade	Points	Final Average in Percent
A		89.5 - 100
B		79.5 - 89.4
C		69.5 - 79.4
D		59.5 - 69.4
F		< 59.5

Tentative Instructional Outline

Week	Book	Participation Reading Assignment	Lab & Analysis Assignment
1, 2	Data Visualization Analytic Thinking	<p>Step 1 – Context</p> <p>An Introduction to the Fundamentals of Critical Thinking</p> <ul style="list-style-type: none"> • Elements of Thought • Intellectual Standards • Intellectual Traits 	<p>Quizzes: Critical Thinking</p>  <p>Download and install Tableau.</p> <p>Analysis Exercise: Narrow Your Audience</p>
3, 4, 5	Data Visualization Analytic Thinking	<p>Step 2 - Visuals</p>	<p>Analysis Exercise: Improve this Table</p> <p>Tableau Walkthrough Assignment - Configuring and Setting Up Your Data</p> <p>Tableau Walkthrough Assignment - Foundations of Chart Visualizations</p>
6, 7, 8	Data Visualization Analytic Thinking	<p>Step 3 - Declutter</p>	<p>Analysis Exercise: Harness Alignment & White Space</p> <p>Tableau Walkthrough Assignment – Common Charts in Tableau</p> <p>Tableau Walkthrough Assignment – Sorting and Grouping</p>

SPRING
BREAK

Week	Book	Participation Reading Assignment	Lab & Analysis Assignment
9, 10, 11,	Data Visualization Analytic Thinking	Step 4 - Focus	Analysis Exercise: Focus on... Tableau Walkthrough Assignment – Calculations Tableau Walkthrough Assignment - Maps Tableau Walkthrough Assignment - Customizations
12, 13, 14	Data Visualization Analytic Thinking	Step 5 - Story	Analysis Exercise: Use Takeaway Titles Tableau Walkthrough Assignment – Tableau Story  Download and Install MSFT Power BI 1/3) Get started with Power BI
15, 16			2/3) Get and transform data with Power BI 3/3) Create and use analytics reports with Power BI

Lone Star College – System Wide Policies

Official Day of Record

Students that have not attended an in-class meeting or participated in an online class prior to the official day of record will be dropped from the course without exception.

“If you are dropped from a class for non-attendance after the Official Day of Record, published in each academic calendar, **you will not be reinstated to the class.** An advisor will assist you to enroll in a late start course to increase your student success. Please monitor your account and courses accordingly so that you can catch any mistakes immediately. Please report any discrepancies to your faculty or the Department Chair, listed in the syllabus.”

Withdrawal Policy

No credit will be awarded for a course earning a “W.” If you stop attending class, you must withdraw at the registration office prior to “W” day. If you stop attending class and do not officially withdraw, you will receive an “F” for the course.

Six Drop Rule

Students who enrolled in Texas public institutions of higher education as first-time college students during the Fall 2007 term or later are subject to section 51.907 of the Texas Education Code, which states that an institution of higher education may not permit a student to drop (withdraw with a grade of “W”) from more than six courses, including courses that a transfer student has previously dropped at other Texas public institutions of higher education that have already been counted against their six drop limit. Each student should fully understand this drop limit before you drop any course. Please see a Counselor or Advisor in our Student Services area for additional information and assistance. This policy does not affect developmental or ESOL students.

Anti-Racism

LSC-UP is committed to eliminating all forms of racism and discrimination by modeling inclusive learning and work environments for students and employees. LSC-UP dismantles barriers for the underrepresented student and commits to ongoing self-examination of our teaching, learning, and operations. By honoring the experiences and cultural capital that each person brings, we strive to create opportunities for all to succeed. We embrace diversity because it enriches everyone’s experience; we advance equity because it is necessary for democracy; we cultivate inclusion because together we achieve greater goals.

As our community’s college, we move beyond equity in access to achieve equity in outcomes. If you experience or witness discrimination, we welcome your communication.



LSC-Energy & Manufacturing Institute

Conflict Resolution

If you have an issue with any aspect of the class (grading, policies, professor behavior, etc.), please discuss the issue with your professor outside of class time. If you cannot resolve the issue with your professor, you may contact the department chair to further discuss the matter.

Department/Division Contact

Department Chair
Vanessa Cox, Ph.D.
Vanessa.L.Cox@lonestar.edu



Division III, Dean Workforce
Andrew Johnson, Ph.D.
andrew.johnson@lonestar.edu





Lone Star College-University Park is committed to your success!

GradUP

The LSC-University Park community is here to support you and we encourage you to graduate! Many of you come to a community college because it provides an open door and it makes sense financially. What you may not realize is what attaining an associate or workforce degree can do for you. Below are just some of the reasons why a degree is a positive move for your life and career:



1. You'll be eligible for more jobs.
2. You could have higher earning potential.
3. You can finish in two years or less.
4. You have options for career paths.
5. You can discover what you want from your academic program and career.
6. You can apply for additional scholarships.
7. Many of the colleges in Texas have articulation agreements with community colleges that allow you to receive full credit for the courses you have completed.
8. Your transfer acceptance is higher with an associate degree. If you have any questions or need guidance with your academic plan and graduation, please ask for assistance. There are resources, advisors, and additional materials available to you. Because your academic success is important, LoneStar College fosters and commits to a set of **cultural beliefs.**



One LSC

I develop meaningful relationships and collaborate for mutual success.



Student Focused

I support and prepare each student to succeed in college and life.



Own It

I bring my best, rise above challenges, and own my contributions.



Advance Equity

I advance diversity and inclusion to create an equitable environment.



Cultivate Community

I cultivate a community of trust and integrity through transparent dialogue and purposeful actions.



Choose Learning

I learn, grow, and create opportunities for others to do the same.



Your success is our primary goal! If you are experiencing challenges achieving your academic goals, please contact your professor or an advisor. We can provide assistance with academic needs, ADA accommodations, classroom difficulties, financial concerns, and other issues.

Advising

The Advising process is an integral part of your academic success. Academic advisors are available to assist you with a variety of academic services including admissions, testing, advising, registration, referral of campus and community resources, add/drop/withdrawal process, transfer planning and graduation processes.

<https://lonestar.edu/advising.htm>

Academic Calendar: <https://lonestar.edu/academic-calendar>

Final Exam Schedule: <https://lonestar.edu/examschedule.htm>

Counseling Services

Counseling services are available to students who are experiencing difficulty with academic issues, selection of college major, career planning, or personal issues. Visit

<https://lonestar.edu/counseling-services.htm> for more information.

Student Learning Resource Center (SLRC)

The Student Learning Resource Center, also known as the SLRC, consists of the library's digital resources and research experts, academic coaching, and the assistive technology lab. The SLRC space on the 8th floor offers open computer labs, study spaces, and printers. Students get their ID cards here, interact with friendly staff, and check out textbooks from the reserve collection. These free services are available to currently enrolled Lone Star College students to support academic success.

Academic Coaching - Writing, Math, and Science

Academic Coaching includes elements of traditional tutoring but focuses on the goals and the process of teaching students to become more effective learners over the course of their studies. Academic Coaching provides academic support for subjects face-to-face or virtually through an online platform called Upswing. This support comes in the form of live coaches as well as a variety of tools and resources to support your academic success. Academic Coaching aids with writing assignments and the writing process.

Assistance in all levels of math and all areas of science is also provided. More information, including hours, guidelines, and how to access online tutoring, can be found online at <https://upresearch.lonestar.edu/academiccoaching>. Please contact _



[@LoneStar.edu](https://www.lonestar.edu) for more information

Assistive Technology Lab

The Assistive Technology (AT) Lab provides services for students who have accommodations that have been approved by Disabilities Services. Students should begin the process in the Disability Services Office (<https://www.lonestar.edu/disability-services.htm>). Assistivetechonology is any item, piece of equipment, software program, or product system used to increase, maintain, or improve the functional capabilities of persons with disabilities. Some examples of servicesinclude note-takers, reader/scribes, digital recorders, smart pens, and text-to-speech software. More information can be found at <https://www.lonestar.edu/UP-AssistiveTech> and you can contact the Assistive Technology Lab staff at UPAssistvieTech@LoneStar.edu.

Library - Digital and Research Resources

The University Park library is completely digital. Online collections of credible resources include articles, e-books, and videos, and are accessible from anywherewith your 14-digit library barcode, which you can request online (<https://www.lonestar.edu/library/card.htm#card>). Librarians are available to assist with finding, evaluating, and citing information and can also be contacted by email (uplibrary-ref@lonestar.edu), text (281.761.6852), or through the “Chat with the Librarian” button on the librarywebpages. You can also stop by in person on the 8th floor! More information, including research andcitation guides and a searchable FAQ, can be found online at <https://www.lonestar.edu/up-library> and <https://www.upresearch.lonestar.edu>.

Lone Star College-University Park College Resources and System Policies

Please see this link for college details: <https://lonestar.edu/up-syllabus-policies>

Please see this link for system details:
<https://www.lonestar.edu/syllabus-policies>