

University of North Texas at Dallas
Spring 2021
Syllabus for MATH 1680 – 030

Department of	Mathematics	School of	Liberal Arts and Sciences
Instructor Name:	Dr. Vinod Arya		
Office Location:	FH -226		
Office Phone:	972 338 1375		
Email Address:	vinod.arya@untdallas.edu		
Office Hours:	(On Zoom and only by appointment) : M 2 pm – 4 pm; W 4 pm – 6 pm; and F 6 pm – 8 pm and other times by request.		
Classroom Location:	<i>Online</i>		
Class Meeting Days & Times:	Online		
Course Catalog Description:	An introductory course to serve students of any field who want to apply statistical inference. Descriptive statistics, elementary probability, estimation, hypothesis testing and small samples.		
Prerequisites:	Math 1010 with grade C or better, or the placement test result appropriate for this course		
Required Text:	Statistics: Informed Decisions Using Data with Integrated Review, 5ed Author(s): Sullivan III, Michael Textbook ISBN-13: 9780321694645		
Access to Learning Resources:	UNT Dallas Library: phone: (972)780-1616 web: http://www.untdallas.edu/library email: library@untdallas.edu UNT Dallas Bookstore: phone: (972) 780-3652 web: http://www.untdallas.edu/bookstore e-mail: untdallas@bkstr.com		
Supported Browsers:	Getting Help with Canvas:		

<p>Chrome 67 & 68 Firefox 60 & 61 Flash 29, 30 (for audio/video) Internet Explorer 11 Edge 41, 42 Respondus Lockdown Browser Safari 10, 11</p> <p>Supported Devices: iPhone Android Chromebook (Tablet users can use the Canvas app)</p> <p>Screen Readers: VoiceOver (Safari) JAWS (Internet Explorer) NVDA (Firefox) <i>Note: There is no screen reader support for Canvas in Chrome</i></p>	<p>Canvas 24/7 Phone Support for Students: 1-833-668-8634</p> <p>Canvas Help Resources: Web: Canvas Student Guide</p> <p>For additional assistance, contact Student Assistance (Distance Learning): Founders Hall, Rm 124 phone: (972)338-5580 email: distancelearning@untDallas.edu</p> <p><i>If you are working with Canvas 24/7 Support to resolve a technical issue, make sure to keep me updated on the troubleshooting progress.</i></p> <p><i>If you have a course-related issue (course content, assignment troubles, quiz difficulties) please contact me during office hours or by email.</i></p>
--	---

Course Goals or Overview: The goals of this course are as follows -

This course addresses the core objectives of **critical thinking skills, communication, and empirical and quantitative skills**

Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

Communication Skills – to include effective development. Interpretation and expression of ideas through written, oral and visual communication

Empirical and Quantitative Skills – to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Learning Objectives/Outcomes: At the end of this course, students will be able to:

1	Explain the use of data collection and statistics as tools to reach reasonable conclusions.
2	Recognize, examine and interpret the basic principles of describing and presenting data
3	Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics
4	Explain the role of probability in statistics.
5	Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
6	Describe and compute confidence intervals.
7	Solve linear regression and correlation problems.
8	Perform hypothesis testing using statistical methods.

Online/Hybrid Course Outline This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class or via class email or Canvas

announcement. Additional readings and activities may be added, these will be noted in the Readings and Activities/Assignments sections.

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class or via class email or Canvas announcement. Additional readings and activities may be added, these will be noted in the Canvas Assignments sections.

Tentative Course Schedule

Order of listing below: Week; Sections; Topics; Due Date

Week of 1/18;Canvas navigation; Syllabus; Canvas navigation. Syllabus Discussion Board # 1;**None. Read topics in previous column. 1/24/21**

Week of 1/25;1.1 -1.4;Introduction to Statistics-Observational studies versus Designed experiments Sampling Methods;**1/31/21**

Week of 2/1;1.5 - 2.2;Bias in Sampling Organizing Qualitative/Quantitative Data;**2/7/21**

Week of 2/8;2.3 – 3.2;Graphical Displays/Misrepresentation of Data Measures of Central Tendency and Dispersion;**2/14/21**

Week of 2/15;3.3 – 3.5;Measures of Central Tendency & Dispersion for Grouped Data Measures of Position, Outliers, & 5-N Summary;**2/21/21**

Week of 2/22;4.1 – 4.2, 5.1;Scatter Diagrams & Correlation Least Squares Regression Line;**2/28/21**

Week of 3/1;5.2 – 5.4;Probability Rules Addition, Complements, Independence and Multiplication Rule;**3/7/21**

Mid-Term Exam; Chapters 1 to 5; Review and Mid-Term Exam;3/6/21

Week of 3/8;6.1 - 6.2;Conditional Probability. Discrete Random Variable, Binomial Probability Distribution;**3/12/21**

Week of 3/15;7.1, 7.2;Properties and Applications of Normal Distribution;**3/21/21**

Week of 3/22;7.3, 8.1- 8.2;Assessing Normality Distribution of Sample Mean & Sampling Proportion;**3/28/21**

Week of 3/29;9.1 -9.2;Estimating the Population Proportion and Population Mean;**4/4/21**

Week of 4/5;10.1, 10.2;The language of Hypothesis Testing;**4/11/21**

Week of 4/12;10.3, 11.1;Hypothesis Test for a Population Proportion and Population Mean;**4/18/21**

Week of 4/19;11.2 – 11.3;Inferences on Two Samples;**4/25/21**

Week of 4/26;Review;Review for the Final Exam (Chapters 7 through 11);**5/1/21**

Week of 5/3; Final Exam (Chapters 6 – 11); 5/3/21

Quiz and Exam/Test Schedule

Quiz No.	Chapters Included	Date
I	I (1.1 – 1.6)	2/07/21
II	II (2.1 – 2.3)	2/14/21
III	III (3.1 – 3.5)	2/21/21
IV	IV (4.1 - 4.2)	2/28/21

V	V (5.1 – 5.4)	3/07/21
Mid-Term Exam	I - V	3/06/21
VI	VI (6.1 – 6.2)	3/12/21
VII	VII (7.1 - 7.3)	3/21/21
VIII	VIII (8,1 – 8.2)	3/28/21
IX	IX (9.1 – 9.2)	4/04/21
X	X (10.1 – 10.3)	4/18/21
XI	XI (11.1 – 11.3)	4/25/21
Final Exam	VI - XI	5/03/21

Course Activities/Evaluation Methods

This course will utilize the following activities/instruments to determine student grades and proficiency of the learning outcomes for the course.

Discussion Posts: Individual or group participation through postings on discussions

Project: Work and submit a project on an assigned topic.

Tests/Exams: written tests designed to measure the knowledge and the understanding on the course materials

Homework, Assignments and Quizzes

Computer-based assignments designed to supplement and reinforce the course materials through MyLab Statistics. Each assignment is preceded by an interactive assignment which must be done before accessing the main assignment. **Assignments submitted after the due date will incur a penalty of 20%.**

Exam policy: Quizzes should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).

GRADING MATRIX

Activities/Assignments	Value (percentages)
Projects/Discussions	10%
Online HW Assignments	25%
Quizzes	20%
Exams (Two)	45%
Total:	100%

GRADE DETERMINATION:

A = 90% or better

B = 80 – 89 %

C = 70 – 79 %

D = 60 – 69 %

F = less than 60%

University Policies and Procedures

Students with Disabilities (ADA Compliance):

Chapter 7(7.004) Disability Accommodations for Students:

The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see [Disability Services Office](#). You may also contact them by phone at 972-338-1777; by email at UNTDisability@untdallas.edu or at Building 2, room 204.

Canvas Instructure Accessibility Statement:

University of North Texas at Dallas is committed to ensuring its online and hybrid courses are usable by all students and faculty including those with disabilities. If you encounter any difficulties with technologies, please contact our ITSS Department. To better assist them, you would want to have the operating system, web browser and information on any assistive technology being used. [Canvas Instructure Accessibility Statement is also provided.](#)

NOTE: Additional instructional technology tools, such as Turnitin, Respondus, Panopto, and publisher cartridge content (i.e. MyLab, Pearson, etc.) may NOT be fully ADA compliant. Please contact our Disability Office should you require additional assistance utilizing any of these tools.

Course Evaluation Policy:

Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

Assignment Policy: (According to the instructor's discretion while working in concert with the division/program's guidelines).

Exam Policy: (Online exams and the ability to retake is solely at the instructor's discretion).

NOTE: Online exams may be proctored on campus per instructor's discretion. **Academic Integrity:**

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to [UNT Dallas' Student Code of Academic Integrity](#) for complete provisions of this code.

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

Web-based Plagiarism Detection: Please be aware in some online or hybrid courses, students may be required to submit written assignments to Turnitin, a web-based plagiarism detection service, or another method. If submitting to Turnitin, please remove your title page and other personal information.

Student Evaluation of Teaching Effectiveness Policy:

The Student Evaluation of Teaching Effectiveness (i.e., SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Classroom Policies

Online Attendance and Participation:

The University attendance policy is in effect for this course. Class attendance in the Canvas classroom and participation is expected because the class is designed as a shared learning experience, and because essential information not in the textbook will be discussed in the discussion board. Online presence and participation in all class discussions is essential to the integration of course material and your ability to demonstrate proficiency.

Attendance for this online or hybrid course is considered when you are logged in and active in Canvas, i.e., posting assignments, taking quizzes, or completing Discussion Boards. To maintain financial aid award eligibility, activity must occur before the census date of the session or term of the course. Refer to [UNT Dallas' Registrar](#) for specific dates. If you are absent/not active in the course shell, it is YOUR responsibility to let the instructor know immediately, upon your return, the reason for your absence if it is to be excused. All instructors must follow university policy 7.005 covering excused absences; however, it is the instructor's discretion, as outlined in the course syllabus, of how unexcused absences may or may not count against successful completion of the course.

Inclement Weather and Online Classes: Online classes may or may not be effected by campus closures due to inclement weather. Unless otherwise notified by your instructor via email, online messaging, or online announcement, students should assume that assignments are due as scheduled.

Online "Netiquette":

In any social interaction, certain rules of etiquette are expected and contribute to more enjoyable and productive communication. Emails, Discussion Board messages and/or any other forms of written communication in the online environment should use proper "netiquette" (i.e., no writing in all caps (usually denotes yelling), no curse words, and no "flaming" messages (angry, personal attacks).

Racial, ethnic, or gender slurs will not be tolerated, nor will pornography of any kind.

Any violation of online netiquette may result in a loss of points or removal from the course and

referral to the Dean of Students, including warnings and other sanctions in accordance with the University's policies and procedures. Refer to [UNT Dallas Student Code of Conduct](#). Respect is a given principle in all online communication. Therefore, please be sure to proofread all of your written communication prior to submission.

Diversity/Tolerance Policy:

Students are encouraged to contribute their perspectives and insights to class discussions in the online environment. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Dean of Students as the instructor deems appropriate.

Technology Assistance: In order to successfully access the materials in an online or hybrid course, UNT Dallas advises that your computer be equipped with the minimum system requirements listed on the first page of the syllabus.

If you have trouble accessing or using components of the course, try using Google Chrome browser. If you still experience technical difficulties, first, notify your instructor.

If the problem is still not resolved, call Student Assistance (Distance Learning) at the phone number listed on the first page of the syllabus. Also, no matter what browser you use, always enable pop-ups. For more information see:

- [UNT Dallas Canvas Technical Requirements](#)
- [Canvas Instructure Supported & Unsupported Operating Systems](#)

Important Dates: Please visit Registrar's Website (untdallas.edu/registrar).