**University of North Texas at Dallas**  
**Fall 2019**  
**Syllabus for MATH 1680 – 030**

<table>
<thead>
<tr>
<th>Department of Mathematics and Information Sciences</th>
<th>School of Liberal Arts and Sciences</th>
</tr>
</thead>
</table>

**Instructor Name:** Dr. Vinod Arya

**Office Location:** FH -226

**Office Phone:** 972 338 1375

**Email Address:** vinod.arya@untdallas.edu

**Office Hours:** Monday/Wednesday: 1 pm – 2pm.  
Online hours: Tuesday 6 pm – 7pm

**Classroom Location:** Online

**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  

| 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:
Chrome 67 & 68  
Firefox 60 & 61  
Flash 29, 30 (for audio/video)  
Internet Explorer 11  
Edge 41, 42  
Respondus Lockdown Browser  
Safari 10, 11

**Supported Devices:**  
iPhone Android  
Chromebook  
*(Tablet users can use the Canvas app)*

**Screen Readers:**  
VoiceOver (Safari)  
JAWS (Internet Explorer)  
NVDA (Firefox)  
*Note: There is no screen reader support for Canvas in Chrome*

**Canvas 24/7 Phone Support for Students:** 1-833-668-8634

**Canvas Help Resources:**  
Web: [Canvas Student Guide](#)

**For additional assistance, contact Student Assistance**  
*(Distance Learning):*  
Founders Hall, Rm 124 phone: (972)338-5580  
email: [distancelearning@untdallas.edu](mailto:distancelearning@untdallas.edu)

*If you are working with Canvas 24/7 Support to resolve a technical issue, make sure to keep me updated on the troubleshooting progress.*

*If you have a course-related issue (course content, assignment troubles, quiz difficulties) please contact me during office hours or by email.*

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

**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.

**Table 1: Course Schedule**

**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.

<table>
<thead>
<tr>
<th>Week</th>
<th>Section</th>
<th>Topics</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>Canvas navigation. Syllabus</td>
<td>Canvas navigation. Syllabus Discussion Board # 1</td>
<td>None. Read topics in previous column.</td>
</tr>
<tr>
<td>Week of 8/26</td>
<td>1.1 - 1.4</td>
<td>Introduction to Statistics-Observational studies versus Designed experiments Sampling Methods</td>
<td>9/1/19</td>
</tr>
<tr>
<td>Week of 9/2</td>
<td>1.5 - 2.2</td>
<td>Bias in Sampling Organizing Qualitative/Quantitative Data</td>
<td>9/8/19</td>
</tr>
<tr>
<td>Week of 9/9</td>
<td>2.3 – 3.2</td>
<td>Graphical Displays/Misrepresentation of Data Measures of Central Tendency and Dispersion</td>
<td>9/15/19</td>
</tr>
<tr>
<td>Week of 9/16</td>
<td>3.3 – 3.5</td>
<td>Measures of Central Tendency &amp; Dispersion for Grouped Data Measures of Position, Outliers, &amp; 5-N Summary</td>
<td>9/22/19</td>
</tr>
<tr>
<td>Week of 9/23</td>
<td>4.1 – 4.2 5.1</td>
<td>Scatter Diagrams &amp; Correlation Least-Squares Regression Line</td>
<td>9/29/19</td>
</tr>
<tr>
<td>Week of 9/30</td>
<td>5.2 – 5.4</td>
<td>Probability Rules Addition, Complements, Independence and Multiplication Rule</td>
<td>10/6/19</td>
</tr>
<tr>
<td>Week of 10/7</td>
<td>6.1 - 6.2</td>
<td>Conditional Probability. Discrete Random Variable Binomial Probability Distribution</td>
<td>10/13/19</td>
</tr>
<tr>
<td>Week of 10/14</td>
<td>Chapters 1 through 6</td>
<td>Review and Mid-Term Exam (Place to be decided)</td>
<td>10/20/19</td>
</tr>
<tr>
<td>Week of 10/21</td>
<td>7.1 -7.2</td>
<td>Properties and Applications of Normal Distribution</td>
<td>10/27/19</td>
</tr>
<tr>
<td>Week of 10/28</td>
<td>7.3, 8.1- 8.2</td>
<td>Assessing Normality Distribution of Sample Mean &amp; Sampling Proportion</td>
<td>11/3/19</td>
</tr>
<tr>
<td>Week of 11/11</td>
<td>10.1, 10.2</td>
<td>The language of Hypothesis Testing</td>
<td>11/17/19</td>
</tr>
<tr>
<td>Week of 11/18</td>
<td>10.3, 11.1</td>
<td>Hypothesis Test for a Population Proportion and Population Mean</td>
<td>11/24/19</td>
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Course Evaluation Methods
This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Discussion Posts: Individual or group participation through postings on discussions

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

Assignments
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

<table>
<thead>
<tr>
<th>Activities/Assignments</th>
<th>Value (percentages)</th>
</tr>
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<tbody>
<tr>
<td>Projects</td>
<td>10%</td>
</tr>
<tr>
<td>Online HW Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Exams (Two)</td>
<td>45%</td>
</tr>
<tr>
<td>Total:</td>
<td>100%</td>
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GRADE DETERMINATION:
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 UNTDdisability@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

**SOME Important Dates:** (For others, please visit Registrar’s Website)

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>First Day of Class</td>
<td>8/26/19</td>
</tr>
<tr>
<td>Last Day to add a Class</td>
<td>8/29/19</td>
</tr>
<tr>
<td>Census Date</td>
<td>9/11/18</td>
</tr>
<tr>
<td>Mid-Term Exams</td>
<td>10/14/19</td>
</tr>
<tr>
<td>Spring Break</td>
<td>11/28/19 – 12/1/19</td>
</tr>
<tr>
<td>Last Day of the Session</td>
<td>12/5/19</td>
</tr>
<tr>
<td>Reading Day (No Classes)</td>
<td>12/6/19</td>
</tr>
<tr>
<td>Final Exams</td>
<td>12/14/19</td>
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</table>