Math 117 - 02   Introduction to Statistics   Fall 2024 Syllabus

Instructor : Richard Bartels, PhD

Contact Information : MECC 227,   860-297-4244,   rbartels@trincoll.edu

Office Hours: MW   1:00 pm - 3:00 pm
                or by appointment (email to set up)

Lecture :   MWF   10:00 - 10:50 am   MECC 232,

Textbook : *Statistics* (13th edition) by James McClave and Terry Sincich

Purpose and Objectives: (Description from Registrar) "This course will provide a basic foundation in descriptive and inferential statistics, including constructing models from data. Students will learn to think critically about data, apply discrete and continuous probability models, and utilize statistical inference procedures using computational tools. Topics include descriptive and inferential statistics, including one and two-sample hypothesis testing, and single and multiple regression. The course is open to any student who has already satisfied the College's Quantitative Literacy requirement."

Prerequisites: A suitable score on the Mathematics Placement Exam or completion of QLIT101 or QLIT 103 with a grade of C- or better.

Grading : Course grades will be assigned in the following way. Your final letter grade will be determined from your numerical percentage grade in the standard way (..., B 83-86, B^+ 87-89, A^- 90-92,...) using the breakdown below.

Note: it is the policy of the math department to not award the grade of $A+$ in 100-level courses.

- Homework: 20%

  - Read/skim relevant textbook sections
  - Assigned homework with varying question types

- 2 Midterm Exams : 25% each

- Final Exam (cumulative): 30% **(Wednesday 12/18 12:00-2:30 PM)**

Important Dates :

Tues, Sep 10	Add/Drop Period ends
	Last day to declare a class Pass/Low Pass/Fail
Tues, Nov 5	Last day to withdraw from Fall Term courses
Oct 28 – Nov 1	Advising Week
Mon, Dec 9	Last day of classes
	Final day to elect to change a Pass/Low Pass/Fail grade to a letter grade
Dec 12 - 18	Final examinations

Please read and sign the following declaration regarding academic integrity:

In accordance with Article II of the Trinity College Student Integrity Contract, I hereby pledge that the papers, exams, and other academic exercises I submit for this course will represent my own work; that I will properly acknowledge and attribute any and all information and ideas that I have used from other sources; and that no collaboration unauthorized by the instructor of the course will occur in the course of its completion.

Signature: _____ Date: _____

Office Hours : You are encouraged (and expected!) to come to office hours whenever you have questions about the course material. If you are unable to make my regularly scheduled office hours, please email me set up an appointment, or drop in if I'm in my office.

Tutoring: Drop-in tutoring is available in the Math Tutoring Center (Q-Center), located in MECC 172, Monday through Thursday 4-10pm and Sunday 7-10pm. The schedule and instructions to access tutoring will be made available in the second week of classes and linked from Moodle as well as at the webpage `https://www.trincoll.edu/quantitative-center/tutoring-support/`

Exams : There will be two in-class exams as indicated on the schedule below, and one cumulative final exam which is scheduled by the registrars office based on the time of our class meeting.
Do not make arrangements to leave for break before the final exam date.
    Final Exam Date and Time: **Wednesday Decemeber 18, 12:00 - 2:30pm**

Expectations:

- You should expect to spend at least 8-12 hours per week outside of class working on homework assignments, reading the relevant section from the text, reviewing your notes and supplemental materials, seeking help in office hours or at the Math Tutoring Center, etc.

- You are expected to participate in lecture. The focus should be on keeping up with and understanding what is going on, not on taking notes. Ask questions when you don't understand something! If you fall too far behind, take notes and come to office hours.

You are encouraged to form study groups and visit office hours or the Tutoring Center for help with homework problems, but you must write your solutions independently.

Students with Accommodations : Trinity College is committed to creating an inclusive and accessible learning environment consistent with the Americans with Disabilities Act. Students with disabilities who may need some accommodation in order to fully participate in this class are urged to contact the Student Accessibility Resource Center, as soon as possible, to explore what arrangements need to be made to assure access.

    If you have approval for academic accommodations, please notify me by the end of week two of classes. For those students with accommodations approved after the start of the semester, a minimum of 10 days' notice is required. Please be sure to meet with me privately to discuss implementation.

    Student Accessibility Resources can be reached by emailing SARC@trincoll.edu

Academic Integrity : In accordance with the Trinity College Student Integrity Contract, students are expected to abide by the highest standards of intellectual honesty in all academic exercises. Intellectual honesty assumes that student do their own work and that they credit properly those upon whose work and thought they draw. It is the responsibility of each student to make sure that they are fully aware of what constitutes intellectually honest work in every exam, quiz, homework, or other academic exercise submitted for evaluation in a course at Trinity College.

Under normal circumstances, missed homework or exams cannot be made up and will receive a grade of zero. In the event of an unforeseen unavoidable circumstance which prevents you from attending class on the day of a homework due date, a suitable make-up assignment, or excusal from the assignment will be granted on a case-by-case basis, provided written documentation of illness or emergency, or a note from the Dean of Students office.

It is your responsibility to find out what was covered in any lecture that you miss and to arrange for the submission of any assignments before the due date.

Course Policies :

- **Use of Moodle:** I will use Moodle to post links to supplemental and review material, copies of homework assignments, solutions, handouts, etc. Please make sure you are able to access the Moodle site and bookmark it.

- **Use of Email:** I will use trincoll email to make mass announcements. Please make sure that your Trinity email account is working and check regularly for announcements.

Tentative Schedule :

Monday	Wednesday	Friday
9/2: Labor Day (no class)	9/4: Syllabus and Chapter 1	9/6: Describing Quantitative Data
9/9: Describing Quantitative Data	9/11: Probability	9/13: Probability
9/16: Probability	9/18: Discrete Random Variables	9/20: Discrete Random Variables
9/23: Discrete Random Variables	9/25: Continuous Random Variables	9/27: Continuous Random Variables
9/30: Continuous Random Variables	10/2: Sampling Distributions	10/4: Sampling Distributions
10/7: Sampling Distributions	10/9: Review for Exam 1	**10/11: Exam 1**
10/14: **Trinity Days** (no class)	10/16: Estimation with Confidence Intervals	10/18: Estimation with Confidence Intervals
10/21: Estimation with Confidence Intervals	10/23: Estimation with Confidence Intervals	10/25: Estimation with Confidence Intervals
10/28: Hypothesis Testing	10/30: Hypothesis Testing	11/1: Hypothesis Testing
11/4: Hypothesis Testing	11/6: Hypothesis Testing	11/8: Hypothesis Testing
11/11: Review for Exam 2	**11/13: Exam 2**	11/15: Linear Regression
11/18: Linear Regression	11/20: Linear Regression	11/22: Linear Regression
11/25: Linear Regression	**11/27: Thanksgiving** (no class)	**11/29: Thanksgiving** (no class)
12/2: Multiple Regression	12/4: Multiple Regression	12/6: Multiple Regression
12/9: Last class-Review for Final Exam	**12/18: (Wed) Final Exam 12:00-2:30pm**	

The content, policies, assignments, and schedule listed in this syllabus are subject to change. I will announce any changes in class and via email.