STAT 145-08 Introduction to Statistics I 3 Credits Fall 2023
Monday, Wednesday, Friday | 10:00 -10:50 am | ROS A310

Description: This course introduces statistical methods of extracting meaning from data, and basic inferential statistics. Topics covered include data and data integrity, exploratory data analysis, data visualization, numeric summary measures, the normal distribution, sampling distributions, confidence intervals, and hypothesis testing. The emphasis of the course is on statistical thinking rather than computation. Statistical software is used.

Prerequisite: MATH 101 or MATH 111 or at least a 55% on the RIT Math Placement Exam

Objectives:

1) To introduce basic statistical concepts and methods.
2) To provide hands-on usage of computers as tools for data analysis.
3) To introduce distinctions between inferential statistics and data mining.

Learning Outcomes:

1) Demonstrate a working knowledge of definitions, concepts, rules, vocabulary and notation of statistics
2) Perform basic statistical calculations using software
3) Use statistical measures and displays to describe data sets
4) Formulate and perform simple hypothesis tests and state conclusions
5) Explain the challenges posed by extremely large data sets
6) Interpret the results of statistical inference and data analysis in context

Class Information:

Class Zoom:	ID: 934 0561 1504 passcode: 14508
Instructor:	Prof. Kathryn Graf
Office:	GOS-3234 and office hours zoom: ID: 922 3136 4852 passcode: stats
Office Hours:	Monday, Wednesday, Friday (in person) 11 am–12 pm & zoom by appointment
e-mail:	kpgsma@rit.edu
Textbook:	*Statistics: Informed Decisions Using Data* by Sullivan 6th edition
Website:	MyStatLab - www.pearsonmylab.com NO COURSE ID enter through my courses
Technology:	Your personal computer or tablet with Minitab 19 downloaded (free through RIT)

Evaluation:

Attendance:

Class attendance is necessary for learning; if you are not present for class then you are missing the material. You are responsible for all work done in class and any announcements made in class, even if you are not present to hear them.

It is your responsibility to contact me if or when you are not able to join class, in return I will provide you with any information you missed. So please keep me informed so I can help you. If you are sick please do not come to in person class, instead watch the pre-recorded lecture that will be posted after lecture.

Please do not use your phone in class, if necessary then I kindly ask that you step into the hallway.

Homework:

A homework assignment will be given for each lecture. Each homework assignment is on MyStatLab. All homework assignments are due the following Monday night at 11:59 pm. I will not remind you about homework due dates.

You are responsible to complete each homework assignment on time; late homework will be accepted with penalty.

Quizzes:

Every Monday you will have an online open-book, open-note 3 minute quiz on the previous week's material. You may take this quiz any time between 8 am and 11:59 pm on Monday. If you stay up to date with the classwork the quizzes should not be difficult.

I will drop your lowest 2 quiz grades.

There will be no make-up quizzes.

Team Activities:

Occasionally after lecture and every Friday; teams will work together on an assignment. These assignments complement and often add to the material from the lecture. 1 person from each team will need to bring a computer to submit the assignment online.

Teams should focus on working together to complete the assignment and to help each other learn. Each team will create a set of rules to establish expectations for team activities.

The assignments will be graded on a weekly basis; your 2 lowest grades will be dropped.

You may make-up team activities if discussed with me prior to the missed class.

Exams:

There will be two exams given during the semester and a cumulative final exam given during final exam week. The final exam is mandatory for all students.

Exam dates will be announced during class. Exams must be turned in on time for credit.

Make-up exams will only be given when a makeup is arranged with me prior to the exam.

Grading:

◊ Exams (2, each 20%)	40%
◊ Final Exam	20%
◊ Quizzes	10%
◊ Team Activities	20%
◊ Homework	10%
Total	100%

Final Grading scale:

A 93-100	**A- 90-92.99**
B+ 87-89.99	**B 83-86.99**
B- 80-82.99	**C+ 77-79.99**
C 73-76.99	**C- 70-72.99**
D 60-69.99	**F below 60**

Outside Help:

If you are having a difficult time with this class then you should seek help from me, a private tutor, or from the free tutoring centers on campus; Sol Study Center (SHH-1016, evenings), Bates Study Center (GOS-1200), or NTID study center (GOS A level). RIT also has an academic support center in Monroe Hall which is very helpful (MON-2080).

Policy Changes:

All policies discussed above are subject to change. Any changes will be announced during class.

TENTATIVE SCHEDULE
This is a tentative schedule; this may change at any time without being announced in class.

Week 1	[8/28-9/1]	Lecture 1 (1.1, 1.3-1.5), Lecture 2 (2.1, 2.2), Team Assignment 1 & 2
Week 2	[9/4-9/8]	No class Monday, Lecture 3 (3.1, 3.2), Team Assignment 3
Week 3	[9/11-9/15]	Lecture 4 (3.4), Lecture 5 (3.5), Team Assignment 4 & 5
Week 4	[9/18-9/22]	Lecture 6 (4.1), Lecture 7 (4.2, 4.3), Team Assignment 6 & 7
Week 5	[9/25-9/29]	Exam #1 Review (2 days), Exam #1 (covering ch. 1-4)
Week 6	[10/2-10/6]	Lecture 8 (5.1, 5.2), Lecture 9 (5.3, 5.4), Team Assignment 8 & 9
Week 7	[10/9-10/13]	No class Monday, Lecture 10 (7.1, 7.2), Team Assignment 10
Week 8	[10/16-10/20]	Lecture 11 (8.1), Lecture 12 (8.2), Team Assignment 11 & 12
Week 9	[10/23-10/27]	Lecture 13 (9.1), Lecture 14 (9.2), Team Assignment 13 & 14
Week 10	[10/30-11/3]	Exam #2 Review (2 days), Exam #2 (on ch. 5-9)
Week 11	[11/6-11/10]	Lecture 15 & 16 (10.1, 10.2, 10.3), Team Assignment 15 & 16
Week 12	[11/13-11/17]	Lecture 17 & 18 (10.2, 10.3, 10.5), Team Assignment 17 & 18
Week 13	[11/20-11/24]	Team Assignment 20, No class Wednesday or Friday
Week 14	[11/27-12/1]	Lecture 19 (10.5, 10.1), Team Assignment 19
Week 15	[12/4-12/8]	Final Exam Review
Week 16	[12/11-12/15]	Final Exam Review, Monday is the last day of classes

ADA Statement:

RIT is committed to providing reasonable accommodations to students with disabilities. If you would like to request accommodations such as special seating or testing modifications due to a disability, please contact the Disability Services Office. It is located in the Student Alumni Union, Room 1150; the Web site is www.rit.edu/dso. After you receive accommodation approval, it is imperative that you see me before or after class so that we can work out whatever arrangement is necessary.

Academic Integrity:

Cheating is not allowed in this class, all work submitted must be your own work. Cheating includes providing materials (including your own work) to another student to use. Cheating will result in a 0 grade.

As an institution of higher learning, RIT expects students to behave honestly and ethically at all times, especially when submitting work for evaluation in conjunction with any course or degree requirement. All students are encouraged to become familiar with RIT's Academic Integrity Policy at https://www.rit.edu/academicaffairs/policiesmanual/d080, the Honor Code at

https://www.rit.edu/academicaffairs/policiesmanual/p030 and the Student Conduct Policy at https://www.rit.edu/academicaffairs/policiesmanual/d180 .