Resource Economics 212 – Fall 2019:

Introductory Statistics for the Social Sciences

Instructor:	Dr. Wayne-Roy Gayle
Office Hours:	Mondays 5:30-6:30pm; Tuesdays 5:30-6:30pm
Office Location:	Stockbridge Hall 217A
Email:	resecon212-wayneroy@courses.umass.edu

Teaching Assistants

Prashikdyvia Gajbhiye	Dhiroj Koirala	Ming Ge
Md Rajib-Ur Rahman	Josh Reed	Augusto Espin Tobar

Supportive Working Environment

Day	Hours	Location	TAs on Duty
Mondays	6pm – 9pm	LIBR 025	Augusto, Dhiroj, Rajib
Tuesdays	6pm – 9pm	LIBR 025	Ming, Prashik
Wednesdays	6pm – 9pm	LIBR 025	Ming, Augusto
Thursdays	6pm – 9pm	LIBR 025	Dhiroj, Rajib, Prashik

Email Policy

All material-related questions (i.e. - related to homework, clarification on statistical concepts, technical errors, etc.) should be posted on the public FAQ Moodle forums.

All administrative issues (grades, absences, etc.) should be sent to: resecon212-wayneroy@courses.umass.edu
Inquires sent to this address are only seen by the instructor.

Please allow 48 hours for replies from the instructor and TAs.

Course Description

This is a blended class. Lectures will be posted online. Students will complete online homework and will then attend a team based learning (TBL) section once a week where they will work in teams on exercises that reinforce and apply the concepts from the online lectures and homework exercises. The online lectures and homework will be completed before attending the TBL section.

Course Objective

Statistics is a field of study, or science, in which we make inferences about populations based on a sample of data. There are two major fields in statistics: mathematical statistics deals with the theoretical underpinnings of the subject and focuses on developing new statistical methods; applied statistics deals with the application of statistical methods to solve problems in other fields of study. This course will focus on the application of statistical methods to Social Sciences and Business. When you complete this course you will have a working knowledge of the methods and skills needed to organize data, conduct meaningful analysis, and draw inferences from sample about a population.
The skills you will learn can be used in your everyday decision- making and communication.

Our broad goal is that you become an active consumer of statistics and a practitioner of statistical analysis. To accomplish this goal, you will need to learn:

The meaning and appropriate uses of the two broad statistical methodologies: *descriptive* and *inferential*.
When statistics are used in a misleading manner and what statistic or statistics would be appropriate.
The construct of different data sets, the types of data included, and which data are appropriate to answer research questions or support policy statements.
The development and use of appropriate descriptive statistics for both qualitative and quantitative data analysis.
The proper interpretations for qualitative and quantitative data displays (graphs, charts, etc.).
The proper applications and interpretations of numeric summary statistics.
How to appropriately use sample data and statistics to make inferences about the properties or characteristics of a population.

Required Materials

TEXTBOOX

You will have the option between two textbooks.

The first is a FREE online statistics textbook developed by Rice University, University of Houston Clear Lake, and Tufts University. The textbook can be found on the Course Moodle page or at the following link:

www.OnlineStatBook.com

The second is Applied Statistics in Business and Economics Volume 1, by David Doane and Lori Seward, Chapters 1-9 (4th Edition). The book cost $75.00. You can purchase the book through the following link:

http://shop.mheducation.com/mhshop/store/UMASSAMH/subcategory/261/4443

MOODLE

The following with be posted on Moodle on a weekly basis:
Pre-TBL videos and content - Project components
TBL class activities - Question/Answer forum
Grades

Some in-class work and some out-of-class assignments will be submitted on Moodle.

STATISTICAL SOFTWARE

We use Microsoft Excel predominantly in this course.

As an UMass Student you can receive a free download of the Microsoft Office Program through IT at the following link: www.it.umass.edu/software

CALCULATOR

For exams you must use a calculator, not a Cell Phone, a Palm, or a Pocket PC. Please note that you cannot share calculators during exams.

i>clicker 2

This class will utilize the iClicker 2. Needs to be the iClicker 2 specifically, not iClicker 1. You can purchase a new or used one and need to make sure you register it on Moodle.

Grading Policy

OWL Homework	20%
In-Class Work	5%
IRAT	10%
SWE Work	5%
Exams	20%
Best Exam	10%
Second Best Exam	5%
Third Best Exam	5%
Final Project	40%

Minimum Grade Guarantee:

We abide by the following minimum grade cutoff points based on a percentage of the total points available: A = 95, A- = 90, B+ = 85, B = 80, B- = 75, C+ = 70, C = 65, C- = 60, D+ = 55, D = 50, and F<50

Description of Grading Components

Late in-class or out-of-class work is not accepted for credit without an acceptable and documented University excused absence.*

*Please visit the following visit for specifics on accepted University excused absences: http://www.umass.edu/registrar/students/policies-and-practices/class-absence-policy

Out-of-Class Work:

Weekly homework assignments are on OWL and are based on online material posted and TBL session content. Your score from these weekly homework assignments will account for 20% of your course grade.

You are welcome to work with your peers and consult your TAs and instructor when working on the homework problems. Homework assignments must be completed 1 hour before your weekly TBL session.

You have unlimited number of tries, but only the highest grade will count towards each homework grade. *You may not see the same question on each trial or have the same questions as your peers.* The lowest homework grade is dropped.

BEGIN HOMEWORK EARLY! YOU WILL NOT BE EXCUSED FOR A TECHINCAL ISSUE.

In-Class Work:

Individual Readiness Assessment Tests (IRAT)

At the beginning of select classes we will have an IRAT. The IRATs contain a number of questions based on the videos and textbook to test your preparation for the weekly TBL session. These will take place through the in-class iClicker system.

You may not use your notes or computer to complete these assessments, nor are you allowed to consult with your classmates.

Your IRAT scores will count as 10% of your final grade.

The 1 lowest IRAT grades are dropped.

In-Class Work and Project Development

During this activity your table will work on applying the material learned for that week to empirical assignments and your group projects.

These sessions are graded on a check scale. Your combined score from these weekly in-class assignments account for 5% of your course grade. These activities are graded using the following scale:

Grade	Percentage Points
0	0%
✓-	60%
✓	80%
✓+	100%

For all team assignments, everyone on the team receives an individual grade, which is recorded on sign-in sheets handed out at the beginning of each session.

Print your name as recorded on Moodle on the sign-sheets. During select weeks your in- class work is submitted by the end of the TBL session. Activities that are not finished during a session should be completed for showing the next session

FOR ALL IN-CLASS WORK - If you are absent, you receive an individual grade of 0 no matter what grade your team received. Makeups are not given without an acceptable University excused absence.*

If you have an acceptable University excuse, you should attend one of the SWEs and provide the documentation to the TAs before your next TBL session. They will have you make up the activities you missed.

Text messaging and social media activities are not allowed in this class. The TBL sessions require that you complete activities as a team. If you are on social media or messaging during class, then you are not fully contributing to your team, in which case you will lose your in-class performance points. Also, these activities are distracting to me and the rest of the class. Therefore, you will be asked to leave the class. You may step out if you have an emergency which requires your immediate attention.

SWE Work:

Your team will attend SWEs at specified times to work on specific sections of your project and the TAs present during these sessions will check your work and record your attendance. You will not be given these assignments every week, but when they are, you are expected to attend your SWE session. You will awarded 5% if you attend all of these SWE sessions. However, you will lose all 5% if you fail to attend two or more of these sessions.

Final Project:

The object of this course is to become consumers and practitioners of statistics. To help achieve this goal, you will complete a final project in the form of a statistical report with your team of 9. Your team will explore a research question that you all come up with using real world data. You have time in each TBL session to work on your project with your teams, but your teams may need to meet outside of class as well. At the end of the semester each table submits a report containing the following sections:

SECTION	CONTENTS
1) Introduction	Background
	Research question
	Motivation and Relevance
2) Data	Source of Data
	Type of Data Set
	Codebook
	Type and Level of Measurement
	Limitations of the Data
3) Methodology	Descriptive Statistics
	Visual Displays
	Methods of Inference
	Appropriateness of Methods
4) Results	Numeric Measures
	Proper Visual Displays
	Point and Interval Estimates
	Hypothesis Tests
5) Conclusion	Summarize and Conclude
6) References	
7) Appendix	

Further descriptions can be found in the Project section of the Moodle site. Your project will be turned in by your team in a series of drafts. The final project accounts for 40% of your final grade. The deadlines and grading breakdown for the project are as follows:

Draft	DUE DATE
First	TBL session 6 in class
Final	Dec 18th at 11:55 pm

The project grading rubric (posted on the Moodle site) provides a detailed breakdown of the allocation of grades to different sections and subsections of your project. While your group project is worth up to 40% of your final grade, your individual level of contribution to its development will be graded as follows:

Contributors	40%
Marginal Contributors	30%
Non-contributors	0%

This means that if you are a marginal contributor, the highest grade you can earn in this course is 90%, and if you are a non-contributor, your highest possible is 60%. Along with each draft, you will submit a document listing the names of the contributors, the marginal contributors, and the non-contributors. Please refer to the project grading rubric for further details.

Exams:

Three exams will be issued throughout the semester. Each exam is comprehensive but will mostly cover the material post previous exam.

Exam	Day, Date, Time	Location
First	Fri, Oct 11th, 6:00 – 10:45 pm	ISB 155-160
Second	Fri, Nov 15th 6:00 – 10:45 pm	ISB 155-160
Third	Wed, Dec 11st, 6:00 – 10:45 pm	ISB 155-160

The percentage towards your final grade that a particular exam is worth is based on the scores of all of your exams. Your best of the three exams will count as 10% of your final grade, while the other two will could as 5% each.

Exam	Percentage Points
Best Exam	10%
Second Best	5%
Third Best	5%

Additional Course Policies

Academic Dishonesty Policy

Cheating will not be tolerated in any shape or form. If you're caught cheating I will follow the University's established procedures to pursue the matter to the fullest extent possible (see your "Undergraduate Rights and Responsibilities" handbook).

DO NOT COPY & PASTE FROM THE INTERNET. THIS IS PLAGIARISM, AND PLAGARISM WILL NOT BE TOLERATED UNDER ANY CIRCUMSTANCES.

Additionally, writing anyone's name who was not present in class on any in-class activity is cheating.

Learning Accommodations

If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge you to contact UMass Disability Services at http://www.umass.edu/disability/current.html. They will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential.

Attendance & Class Preparation:

Completing and ensuring that you understand the out-of-class work is extremely important. Please take advantage of the numerous supportive work environment hours that are offered throughout the week. Additionally, attending TBL sessions (ON TIME) is expected and critical to success in this course. Students who do not attend class cannot expect individual tutoring from teaching assistants or the instructor. If you miss a TBL session without an acceptable University excused, you are still responsible for the material covered in and outside of class.

TA Project Support Section Leaders

Section	TA Leader
Monday @ 4:00 (Sec01)	Rajib
Tuesday @ 4:00 (Sec02)	Prashick
Tuesday @ 2:30 (Sec03)	Josh
Wednesday @ 4:00 (Sec04)	Ming
Thursday @ 4:00 (Sec05)	Augusto
Thursday @ 2:30 (Sec06)	Dhiroj

These TAs will be your team's project support and will be there to help you with any project related issues and questions. Your TAs are your academic life-line; please get to know them. And, PLEASE, treat them with respect in person and in emails.