
BIOSTATISTICS (BI345)

Dr. LORI LAPLANTE

FALL 2017

COURSE MEETING TIMES:

Lecture: T / TH 10:00 – 11:15 AM

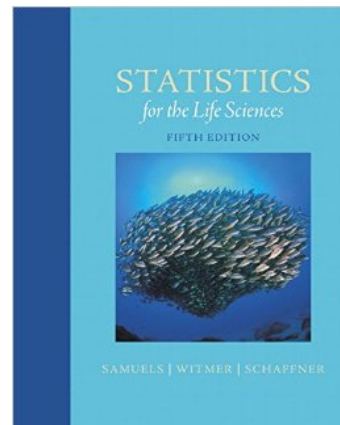
Location: Goulet 3105 and Weiler Computer Lab

Office: Goulet 2317; Research Lab: Goulet 1305

Office hours: Mondays 1:00 – 4:00 or by appt.

Phone: 641-7163

Email: llaplante@anselm.edu



REQUIRED TEXTS & SUPPLIES:

- *Statistics for the Life Sciences*. 5TH edition, by Myra L. Samuels, and Jeffrey A. Witmer. Prentice Hall. 2015:
 - website: <https://www.pearsonhighered.com/mathstatsresources/#author=S>
- Calculator

SAKAI: I will use Sakai to post announcements, lecture notes, and grades. If you have any problems accessing the course page from Sakai please let IT and I know immediately.

EVALUATION:

Your final grade in BI345 will be based on a total of **520** points**

3 Lecture Exams	300
Quizzes	50
Final Exam	150
Participation (1 st half of semester)	10
Participation (2 nd half of semester)	10
TOTAL	520

<u>Grade</u>	<u>%</u>	<u>Grade</u>	<u>%</u>
A	>93	C	74-76
A-	90-93	C-	70-73
B+	87-89	D+	67-69
B	84-86	D	64-66
B-	80-83	D-	60-63
C+	77-79	E	<60

****Note:** Grades are determined by points earned on items listed in the Evaluation section only. There is no opportunity other than what is explicitly stated in this syllabus to earn points, that is, no special assignments nor additional work beyond that given other students.

Exams will cover information from lectures, computer assignments, homework assignments, and assigned reading material. The format of each exam is generally 1/3 multiple choice, 1/3 fill-in, and 1/3 short answers. Only the final exam is cumulative. **A make-up exam will be scheduled only if you provide a note from the Dean.**

Quizzes: At the beginning of most class periods, there will be a short quiz (3-5 questions). Your final quiz grade will be the measure of center of all your quizzes.

Final exam for BI345 will be cumulative (see schedule below for date and time of final).

Participation is earned by your efforts and attitude during lecture and in the computer lab. Below are criteria for participation grades. You may ask me at any time for your current participation grade.

Participation Grade →	A	B	C
Attendance	Has no unexcused absences	Has no more than 1 unexcused absence	Has more than 1 unexcused absence
Assignments	Completes all computer assignments and consistently checks answers with instructor	Completes all computer assignments and periodically checks answers with instructor	Sporadically completes computer assignments and only occasionally checks answers with instructor
Class Preparation	Same as “B” criteria + and is familiar with assigned reading material.	Same as “C” criteria + knows definitions for vocab terms.	Comes prepared with notes.
Involvement in Class Discussions	Consistent and very actively involved	Sporadic	Infrequent
Contribution to Class Discussions	Contributes in a very significant way to ongoing discussion: keeps analysis focused, responds very thoughtfully to other students’ comments, contributes to cooperative argument-building, suggests alternative ways of approaching material and helps class analyze which approaches are appropriate, etc.	Contributes well to discussion in an ongoing way: responds to other students’ points, thinks through own points, questions others in a constructive way, offers and supports suggestions that may be counter to the majority opinion.	Doesn’t offer to contribute, but contributes to a moderate degree when called upon
Attitude	Enthusiastic, supportive of others	Consistently positive	Has a neutral attitude - makes no negative or positive comments

ATTENDANCE POLICY:

Attendance at lecture is mandatory and excessive absences will affect your final grade. You may accumulate class absences amounting to the number of class meetings per week, which for this course is **3** absences. These “allowed absences” should be used for reasons necessitated by circumstances such as a brief illness, a personal obligation that conflicts with a class, or participation in College-sponsored events. Absences beyond these “allowed absences” will have a negative impact on your grade. If you exceed this number, then your final

course grade will be reduced by 5% for each additional absence beyond the allowed 3. For example, if you have an 84%, or 'B', at the end of the course but have 4 absences, then your final course grade will be adjusted down to 79%, a 'C+'. Keep in mind that **work missed resulting from any unexcused absence may not be made up!**

- If you know you will be missing a class in advance, please contact me so that a make-up option may be arranged.
- Make-up quizzes and exams will be permitted only with an "excused" absence.
- Please refer to the Student Handbook for additional policies regarding attendance.
- **Student athletes** will occasionally have conflicts between games and lectures in this course. It is your responsibility to meet with Dr. LaPlante **before** the scheduling conflict so that appropriate arrangements can be made.

CREDIT HOURS – WORKLOAD EXPECTATION

According to the College Catalogue, the expectations for this 4 credit lecture course is **3 hours in class and a minimum of 9 hours of out of class work per week**. To be successful in this class, you must put in the time, particularly when it comes to doing recommended exercises and assignments. Expectations for the class are designed with this time commitment in mind.

ACADEMIC RESOURCE CENTER:

Peer tutoring and writing support are available at The Academic Resource Center (ARC) free of charge. You are encouraged to take full advantage of the resources available to you through the ARC. Hours of operation are posted online <http://www.anselm.edu/arc> or call the Academic Resource Center at 641-7017.

ACADEMIC HONESTY:

It is imperative that you review the section on Academic Honesty in your Student Handbook, and review your copy of *Doing Honest Work in College* (from Freshman year), where there are clear explanations of what is considered cheating and plagiarism. Remember, it is **your responsibility** to understand these. Incidents of cheating or plagiarism will be reported to the Dean of Students – no exceptions! In addition, depending on the severity of the infraction, cases of cheating or plagiarism may result in a failing grade for the assignment or exam in question, a failing grade in the course, or expulsion.

ELECTRONIC DEVICES:

In order to avoid disruption to the class, the use of cell phones, pagers, PDAs, or similar communication devices are prohibited during scheduled classes. Text messaging or accessing information on these devices is likewise forbidden. All such devices must be put in a silent (vibrate) mode and ordinarily should not be taken out during class. Given the fact that these same communication devices are an integral part of the College's emergency notification system, an exception to this policy would occur when numerous devices activate simultaneously. When this occurs, students may consult their devices to determine if a college emergency exists. If that is not the case, the devices should be immediately put away.

QUANTITATIVE REASONING OBJECTIVES AND OUTCOMES (QUAN)

Goals and Objectives

Quantitative reasoning is defined as the capacity for creative problem solving through the ability to assess numerical evidence and to reason from data. Courses in quantitative reasoning will: promote understanding and appreciation of quantitative information and its application to problems from many areas; develop valid reasoning and decision-making skills; prepare students to apply numerical, logical, and analytical techniques as necessary to be active and responsible citizens, or as appropriate to the field; and develop in students the ability to gather, assess, and draw inferences from data and information, as well as the ability to recognize when an issue cannot be resolved using quantitative techniques.

Student Learning Outcomes

Students who have completed a quantitative reasoning course should be able to:

- demonstrate a well-developed understanding of theoretical and conceptual framework for quantitative reasoning, such as aspects of mathematics, statistics, and logic.
- solve problems quantitatively using appropriate arithmetical, algebraic, or statistical methods.
- create and interpret visual representations of quantitative information, such as graphs or charts.
- understand and critically assess data collection and its representation.
- understand what can and cannot be inferred from a set of data and the limits of techniques used in order to recognize errors that can be made in carrying out analyses.
- communicate and present quantitative results effectively.
- apply quantitative reasoning in a practical manner to everyday situations.

ADA/504 COMPLIANCE STATEMENT

Saint Anselm College is committed to meeting the needs of students with documented physical, sensory, psychiatric, and learning disabilities. To disclose a disability and request accommodations, please see Kenneth Walker in the Academic Resource Center (ARC), who will assist you in making contact with faculty members and arranging support services and accommodations available within the ARC and elsewhere. To ensure that accommodations are arranged in a timely manner, you are encouraged to make your request at the beginning of each semester. For questions concerning support services, documentation guidelines, or disability email KWalker@anselm.edu, or go to: <http://www.anselm.edu/Current-Students/Academic-Resources/Disability-Services.htm>

Schedule for Biostatistics (BI345)
subject to change

Week	Dates	Topic
1	8/29 – 8/31	Ch. 1: Introduction Ch. 2: Description of Samples & Populations
2	9/5 – 9/7	Ch. 2: Description of Samples & Populations
3	9/12 – 9/14	Ch. 3: Probability Ch. 4: Normal Distribution
4	9/19 – 9/21	Ch. 5: Sampling Distributions Ch. 6: Confidence Intervals
5	9/26 – 9/28	Exam 1: Tues., Goulet 3105 Chs. 4 and 7: Hypothesis Testing/Assessing Normality
6	10/3 – 10/5	Ch. 7: Comparison of Two Independent Samples
7	10/12	<i>No Class 10/10 (Tue) – Happy Fall Break!</i> Ch. 7: Comparison of Two Independent Samples (cont.)
8	10/17 – 10/19	Ch. 8: Comparison of Two Dependent Samples
9	10/24 – 10/26	Chs 9 & 10: Categorical Data Analyses
10	10/31 – 11/2	Ch. 11: ANOVA
11	11/7 – 11/9	Exam 2: Tues., Goulet 3105 Ch. 11: ANOVA (cont)
12	11/14 – 11/16	Ch. 12 Correlation
13	11/21 – 11/23	Ch. 12: Linear Regression
14	11/28 – 11/30	Ch. 12: Linear Regression (cont.)
15	12/5 – 12/7	Exam 3: Tues., Goulet 3105 Review for Final Exam / Wrap – Up

****FINAL EXAM: THURSDAY, DECEMBER 14TH AT 9:00 AM****