

UNIVERSITY OF MASSACHUSETTS
Department of Biostatistics and Epidemiology
BIOSTATS 640 - Intermediate Biostatistics
Fall 2024

Title: BIOSTATS 640 – Intermediate Biostatistics
Course website: <http://people.umass.edu/~biep640w>
Spire Class Numbers: 640-01 (28098)
Number of credits: 3
Instructor: Carol Bigelow, PhD
Department of Biostatistics & Epidemiology
Email: cbigelow@schoolph.umass.edu
Teaching Assistant: Wenhao Jiang, Graduate Student - Biostatistics
Email: wenjiang@umass.edu

Weekly Schedule At a Glance

Wednesdays 5:00 - 7:30 pm September 4 - December 4, 2024 <i>Except 11/27/24 (NO CLASS - Thanksgiving Recess)</i>	Wednesday face-to-face classroom and synchronous Zoom Time: 5:00 – 7:30 pm Location: Morrill III - Room 212 Zoom Link: Available on Canvas <i>All Zoom meetings will be recorded</i>
Fridays 4:00 - 5:00 pm September 6 - December 6, 2024 <i>Except 11/29/23 (NO CLASS - Thanksgiving Recess)</i>	Friday Office Hour synchronous Zoom Time: 4:00 – 5:00 pm Zoom Link: Available on Canvas <i>Zoom office hours will be recorded upon request</i>
Office Hour, by Appointment	Carol Bigelow (cbigelow@schoolph.umass.edu) Wenhao Jiang (wenjiang@umass.edu)

* Attendance is *encouraged but NOT* required. All Zoom meetings will be recorded and all recordings and associated slides will be posted on Canvas (Please note: recordings and Zoom slides will not be posted on public course site).

Introduction to September 19, 2024 Update.

This update incorporates 3 changes.

In response to your requests that our class meetings remain at their originally scheduled times (Wednesdays 5:00 - 7:30 pm), I have revised the course syllabus accordingly. There are NO LONGER any Thursday class meetings.

Also in response to your interest in some reviews of introductory biostatistics and group work, I have revised my class presentations. Going forward, each Wednesday, I will deliver two presentations: 1) a 640 lecture; followed by 2) a second presentation of your choosing (review of introductory biostatistics, group work, R Lesson, other).

Exam I will cover only two units: Unit 2 (Discrete Distributions) and Unit 3 (Introduction to Nonparametrics)

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I will be using your UMass email address only

Course Description

Content. BIOSTATS 640 - *Intermediate Biostatistics* is an applied data analysis course that utilizes R. It is designed for students who have successfully completed a single semester 3-credit course in introductory biostatistics or its equivalent. BIOSTATS 640 emphasizes statistical literacy and skills in selected, basic, analyses of biological and health data. Topics include: review of introductory biostatistics, selected discrete distributions, introduction to nonparametric tests, analysis of epidemiological tables, single and multiple predictor normal theory regression, logistic regression and introduction to survival analysis.

Software. We will be using R. Beginners welcome! No prior programming experience is required. I will provide instruction (and boiler code!) in R for basic data management and data analysis. Students wishing to use other statistical software (e.g., SAS, Stata, SPSS, MatLab) are welcome to do so, with the understanding that I will not be providing support in these other software packages.

BIOSTATS 640 is not a course in programming and you will not be tested on how to write R code.

ADA Accommodation Policy

The University of Massachusetts Amherst is committed to making reasonable, effective and appropriate accommodations to meet the needs of students with disabilities and help create a barrier-free campus. If you have a disability and require accommodations, please register with Disability Services (161 Whitmore Administration building; phone 413-545-0892) to have an accommodation letter sent to your faculty. Information on services and materials for registering are also available on their website www.umass.edu/disability."

If, because of a disability, you require special arrangements in order to meet course requirements, please contact me as soon as possible (email: cbigelow@schoolph.umass.edu) so that we can make the necessary arrangements.

Resources for Remote Learning

Please be sure to familiarize yourself with these resources and technologies before the first week of class (Tuesday – Friday, September 3-6, 2024).

- ___1. Public Course Website: <https://people.umass.edu/~biep640w/>
- ___2. UMass Amherst Canvas Login: <https://www.umass.edu/it/services/learning-management-systems>
- ___3. Canvas Information for Students: <https://www.umass.edu/provost/lms-transition/students>
- ___4. UMass Amherst Zoom Login: <https://www.umass.edu/it/zoom>
- ___5. Resource for Learning Zoom:
(source: <https://support.zoom.us>) [Zoom Video Tutorials](#)
Tip: Be sure to watch these two tutorials, here: “[Join a Meeting](#)” and “[Meeting Controls](#)”

Policies on Classes and Work Missed for Extenuating Circumstances.

Per University of Massachusetts Academic Regulations,

“Students absent due to extenuating circumstances-including jury duty, military obligations, scheduled activities for other classes, the death of a family member, or verifiable health-related incapacity-remain responsible for meeting all class requirements and contacting the faculty member in a timely fashion about making up missed work. Faculty shall offer such students reasonable assistance in making up missed classes (i.e., making arrangements for attendance at labs or discussion sections which meet at other times; providing makeup exams or labs where feasible or offer mutually agreeable alternatives to make up work).”

Dear BIOSTATS 640 Fall 2024,

With this in mind, I have incorporated options for late submissions of homeworks and exams (See below, Grade Determination). If you have any additional extenuating circumstances that prevent you from completing any work by the last dates of late submission, please contact me as soon as possible (email: cbigelow@schoolph.umass.edu) to request an extension. Thank you – carol.

Course Units, Objectives, and Outcome Competencies

Course Units. This course has 8 units.

1. Review of Introductory Biostatistics (formerly BIOSTATS 540, *Introductory Biostatistics*)
2. Discrete Distributions
3. Introduction to Nonparametrics
4. Categorical Data Analysis
5. Normal Theory Regression
6. Analysis of Variance
7. Logistic Regression
8. Introduction to Survival Analysis

Objectives.

By the end of this course, you should be able to perform, interpret, and report the findings of selected basic statistical analyses: description, hypothesis testing (including nonparametric tests), epidemiologic tables, simple and multiple predictor normal theory regression, analysis of variance, logistic regression, and some simple survival analysis techniques.

Outcome Competencies.

You will learn how to do the following:

1. Explain the conceptual framework of selected, basic methods, of biostatistical analysis. This is statistical literacy. You will be introduced to its underlying principles, rationale, and relevance. For example, you will learn that a good model is likely to be wrong, but is potentially useful if provides important insights into the direction and strength of associations that might exist in nature.
2. Develop a conceptual framework that integrates techniques and methods in biostatistics. You will learn that the principles of biostatistics (and epidemiology, too) are grounded in scientific reasoning and the goal of causal inference. You will also refresh your understanding of how the ideas of estimation and statistical hypothesis testing are related to the notion of “signal” and “noise”.
3. Integrate analysis strategies in biostatistics with principles and issues in epidemiology. The presentation of the topics in this course will highlight their relevance to key issues in epidemiology; e.g., confounding, effect modification, discovery of intermediary pathways, and reduction of bias.
4. Apply biostatistical methods to the design of a data analysis plan. You will learn how to integrate the principles of statistical literacy with those of epidemiological research to gain practice in developing data analysis plans. You will also see that these vary, depending on the data type and the questions of interest.
5. Use R to appropriately store, manage, manipulate and process data for a research study. This course includes an introduction to the use of R for data management. No prior programming experience is required.
6. Use R in basic statistical analyses of public health data. I will provide illustrations of R for basic statistical analyses. Reminder - This is *not* a course in R programming and you will not be tested on how to write R code.
7. Describe the basic concepts of probability, random variation and selected, commonly used, probability distributions – You will learn additional applications of the concepts of sampling distributions and additional applications of the central limit theorem expanding upon what you learned in your introductory statistics course. Specifically, you will learn how sampling distributions and applications of the central limit theorem are also the foundation of modeling.
8. Use R to explore datasets. I will provide data sets for you to explore using R! This will be an opportunity to practice developing an analysis plan, cleaning data, performing statistical analyses, interpreting results of statistical analyses (especially with respect to the analysis goals and associated issues of confounding, bias, effect modification, and precision) and writing a report of data analysis findings.
9. Interpret results and critically evaluate basic statistical aspects of public health research and practice reported in the literature. You will gain practice in being a statistically literate consumer of published examples of data analyses.
10. Effective communication. The utility of biostatistics rests, ultimately, in its effective communication! You will gain practice in the communication of biostatistics work to the lay reader. You will learn how to write the following types of descriptions: analysis question, rationale, method used, statistical findings, and subject matter relevance.

Textbook and R

BIOSTATS 640 has no required text. Here are some useful resources:

Course Content

(1) As needed, review of introductory biostatistics course content (level: beginner)

Whitlock MC and Schluter D

The Analysis of Biological Data, *Third Edition*

Macmillan Learning

2020

ISBN: 978 1319 226 237

(2) As needed, review of introductory biostatistics course content (level: beginner)

Course website for BIOSTATS 540 – Fall 2022

Note: Beginning Fall 2023, BIOSTATS 540 is no longer offered. However, the following public website is still available:

<http://people.umass.edu/~biep540w/>

(3) Course content (level: intermediate)

Gelman A, Hill J, and Vehtari, A

Regression and Other Stories (Analytical Methods for Social Research)

Cambridge University Press

2020

ISBN: 978-1107676510

(4) Course content (level: intermediate)

Vittinghoff E, Glidden DV, Shiboski SC, and McCulloch CE

Regression Methods in Biostatistics: Linear, Logistic, Survival and Repeated Measures Models, 2nd Edition

Springer

2012

ISBN: 978-1461413523

1.

R

(1) R for Beginners - Book

Li, Quan

Oxford University Press, 2018

ISBN: 978-0-1906-5622-5

Using R for Data Analysis in Social Sciences

<https://www.oxfordscholarship.com/view/10.1093/oso/9780190656218.001.0001/oso-9780190656218>

(2) R for Beginners/Intermediate - Book

Wickham H, Cetinkay-Rundel M, and Golemund G

R for Data Science: Import, Tidy, Transform, Visualize and Model Data, 2nd Edition

O'Reilly Media

ISBN: 978-1492097402

**You will not be tested on R or any other statistical software; and
Use of R or any other statistical software will not be necessary in any exam.**

Important Dates to Remember

Tuesday-Friday September 3-6, 2024	First Week of Class
<u>Matriculated Graduate Students:</u> Monday September 16, 2024 <u>Matriculated Undergraduates & Non-Degree:</u> Monday September 9, 2024	Last Day to Drop with NO Record
Monday-Friday October 14-18, 2024	Indigenous People's Day Observance Monday October 14, 2024 <i>Note: According to the UMass calendar, on Tuesday October 15, 2024, UMass will follow a "Monday" schedule.</i>
Tuesday October 29, 2024	Last Day to Drop w "DR" – Graduate (including UWW) Last day to drop with "W" and select 'P/F' - Undergraduate, Stockbridge, CPE
Wednesday - Friday November 27-29, 2024	Thanksgiving Recess
Monday December 2, 2024	Classes Resume
Tuesday December 10, 2024	Last Day of Classes
Friday December 13, 2024	Last Date for Late Submissions of Homeworks 20 point deduction for late submission No exceptions
Monday December 16, 2024	Final (Exam 3) Due
Wednesday December 18, 2024	Last Date for Late Submission of Final (Exam 3) 10 point deduction for late submission No exceptions

Weekly Schedule

Update September 19, 2024. - In response to your interest in supplemental lectures to address topics in introductory biostatistics and/or group work, I will be delivering 2 presentations each Wednesday. The first will be a 640 lecture. The second will be determined **by you** as we go along. Possibilities include a introductory biostatistics lecture, group work, or a "Learn R" lesson!

Week	Wednesday Face-to-Face Morrill III, Room 212	Friday Zoom Office Hour Link to join on Canvas
1 Tuesday - Friday September 3-6, 2024	Wednesday September 4, 2024 5:00 - 7:30 pm Lecture: Unit 1 - BIOSTATS 540 Learn R 01: Up and Running with R	Friday September 6, 2024 4:00 – 5:00 pm Zoom Office Hour
2 Monday - Friday September 9-13, 2024	Wednesday September 11, 2024 5:00 - 7:30 pm Lecture: Unit 2 - Discrete Distributions Presentation 2: Introductory Biostatistics Hypothesis Testing and Confidence Intervals	Friday September 13, 2024 4:00 – 5:00 pm Zoom Office Hour
3 Monday - Friday September 16-20, 2024	Wednesday September 18, 2024 5:00 - 7:30 pm Lecture: Unit 3 - Nonparametrics Presentation 2: Group Work and Practice Exam Questions	Friday September 20, 2024 4:00 – 5:00 pm Zoom Office Hour
4 Monday - Friday September 23-27, 2024 Exam 1 Posted Today Monday September 23, 2024 <i>You have 2 weeks due Monday October 7, 2024</i>	Wednesday September 25, 2024 5:00 - 7:30 pm Lecture: Unit 4 - Categorical Data Analysis (1 of 2) Presentation 2: To be determined	Friday September 27, 2024 4:00 – 5:00 pm Zoom Office Hour

Weekly Schedule, continued*Apologies. I do not post lecture presentations, notes or exams ahead of schedule.*

Week	Wednesday Face-to-Face Morrill III, Room 212	Friday Zoom Office Hour Link to join on Canvas
5 Monday - Friday September 30 - October 4, 2024	Wednesday October 2, 2024 5:00 - 7:30 pm Lecture: Unit 4 - Categorical Data Analysis (2 of 2) Presentation 2: To be determined	Friday October 4, 2024 4:00 – 5:00 pm Zoom Office Hour
6 Monday - Friday October 7-11, 2024 Monday October 7, 2024 Exam 1 DUE TODAY	Wednesday October 9, 2024 5:00 - 7:30 pm Lecture: Unit 5 - Normal Theory Regression (1 of 3) Presentation 2: To be determined	Friday October 11, 2024 4:00 – 5:00 pm Zoom Office Hour
7 Monday - Friday October 14-18, 2024	Wednesday October 16, 2024 5:00 - 7:30 pm Lecture: Unit 5 - Normal Theory Regression (2 of 3) Presentation 2: To be determined	Friday October 18, 2024 4:00 – 5:00 pm Zoom Office Hour
8 Monday - Friday October 21-25, 2024	Wednesday October 23, 2024 5:00 - 7:30 pm Lecture: Unit 5 - Normal Theory Regression (3 of 3) Presentation 2: To be determined	Friday October 25, 2024 4:00 – 5:00 pm Zoom Office Hour

Weekly Schedule, continued*Apologies. I do not post lecture presentations, notes or exams ahead of schedule.*

Week	Wednesday Face-to-Face Morrill III, Room 212	Friday Zoom Office hour Link to join on Canvas
9 Monday - Friday October 28 - November 1, 2024 Exam 2 Posted Today Monday October 28, 2024 <i>You have 2 weeks</i> <i>due Tuesday November 12, 2024</i>	Wednesday October 30, 2024 5:00 - 7:30 pm Lecture: Unit 6 - Analysis of Variance (1 of 2) Presentation 2: To be determined	Friday November 1, 2024 4:00 – 5:00 pm Zoom Office Hour
10 Monday - Friday November 4-8, 2024	Wednesday November 6, 2024 5:00 - 7:30 pm Lecture: Unit 6 - Analysis of Variance (2 of 2) Presentation 2: To be determined	Friday November 8, 2024 4:00 – 5:00 pm Zoom Office Hour
11 Tuesday - Friday November 12-15, 2024 Tuesday November 13, 2024 Exam 2 DUE TODAY	Wednesday November 13, 2024 5:00 - 7:30 pm Lecture: Unit 7 - Logistic Regression (1 of 2) Presentation 2: To be determined	Friday November 15, 2024 4:00 – 5:00 pm Zoom Office Hour

Weekly Schedule, continued*Apologies. I do not post lecture presentations, notes or exams ahead of schedule.*

Week	Wednesday Face-to-Face Morrill III, Room 212	Friday Zoom Office Hour Link to join on Canvas
12 Monday - Friday November 18-22, 2024	Wednesday November 20, 2024 5:00 - 7:30 pm Lecture: Unit 7 - Logistic Regression (2 of 2) Presentation 2: To be determined	Friday November 22, 2024 4:00 – 5:00 pm Zoom Office Hour
Thanksgiving Recess Wednesday - Friday November 27-29, 2024	Wednesday November 27, 2024 No Class	Friday November 29, 2024 No Office Hour
13 Monday - Friday December 2-6, 2024 Last week of class Exam 3 Posted Today Monday December 2, 2024 You have 2+ weeks due Monday December 16, 2024	Wednesday December 4, 2024 5:00 - 7:30 pm Lecture: Unit 8 - Survival Analysis Presentation 2: To be determined	Friday December 6, 2024 4:00 – 5:00 pm Zoom Office Hour
Monday - Friday December 9-13, 2024		Friday December 13, 2024 Last Date for Late Submission of Homeworks with -20 points, No exceptions
Course Close-Out Monday - Wednesday December 16-18, 2024 Monday December 16, 2024 Exam 3 DUE TODAY	Wednesday December 18, 2024 Last Date for Late Submission of Exam 3 with -10 points, No exceptions	

End of Semester Deadlines

Date	Last Date for Submission of:
Friday December 13, 2024	Last Date for Late Submission of Homeworks (-20 points) Sorry- <i>No homeworks will be accepted after December 13, 2024</i>
Monday December 16, 2024	Exam 3 (FINAL) due
Wednesday December 18, 2024	Last Date for Late Submission of Exam 3 (-10 points) <i>Sorry, no exams will be accepted after December 18, 2024</i>
Tuesday December 24, 2024	Course Grades To Graduate School due

At a Glance: Homework Schedule

Homework	Posting	Due	Topics Covered
1	Thursday September 5, 2024	Thursday September 12, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 9/19/2024</i>	Unit 1 – Review of Introductory Biostatistics
2	Thursday September 12, 2024	Thursday September 19, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 9/26, 2024</i>	Unit 2 – Discrete Distributions
3	Thursday September 19, 2024	Thursday September 26, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 10/3/2024</i>	Unit 3 – Introduction to Nonparametrics
4	Thursday September 26, 2024	Thursday October 3, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 10/10/2024</i>	Unit 4 – Categorical Data Analysis #1
5	Thursday October 3, 2024	Thursday October 10, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 10/17/2024</i>	Unit 4 – Categorical Data Analysis #2
6	Thursday October 10, 2024	Thursday October 17, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 10/24/24</i>	Unit 5 – Normal Theory Regression #1
7	Thursday October 17, 2024	Thursday October 24, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 10/31/24</i>	Unit 5 – Normal Theory Regression #2
8	Thursday October 24, 2024	Thursday October 31, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 11/7/24</i>	Unit 5 – Normal Theory Regression #3
9	Thursday October 31, 2024	Thursday November 7, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 11/14/24</i>	Unit 6 – Analysis of Variance #1
10	Thursday November 7, 2024	Thursday November 14, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 11/21/24</i>	Unit 6 – Analysis of Variance #2
11	Thursday November 14, 2024	Thursday November 21, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 12/5/24</i>	Unit 7 - Logistic Regression #1
12	Thursday November 21, 2024	Thursday December 5, 2024 <i>Last date for submission for credit with -20 points</i> <i>Thursday 12/12/2024</i>	Unit 7 - Logistic Regression #2
-	November 27-29, 2024	Thanksgiving Recess	Thanksgiving Recess

At a Glance: Exam Schedule

All exams are “open book”, “take home”. Use of R is NOT required in any exam.

Exam	Posting	Due	Units Covered
1	Monday September 23, 2024	Monday October 7, 2024 <i>Last date with (-10 points): Wed 10/9/24 Last date with (-20 points): Mon 10/14/24</i>	2 - Discrete Distributions 3 - Introduction to Nonparametrics
2	Monday October 28, 2024	Tuesday November 12, 2024 <i>Last date with (-10 points): Thu 11/14/24 Last date with (-20 points): Tue 11/19/24</i>	4 - Categorical Data Analysis 5 - Normal Theory Regression
3	Monday December 2, 2024	Monday December 16, 2024 <i>Last date with (-10 points): Wed 12/18/24</i>	6 - Analysis of Variance 7 - Logistic Regression

Course Expectations (Instructor, Teaching Assistant, and Students)***Instructor***

- We will respond to all emails and messages every day, *except for Saturdays*
- I will provide a regularly scheduled Zoom office hour: Fridays 4:00 - 5:00 (Link on Canvas)
- Wenhao and I will also provide Zoom meeting office hours by appointment

Teaching Assistant (TA) - Wenhao Jiang

- Wenhao will record homework submissions within one week of their due dates.
- Wenhao will respond to questions in homework submissions within one week of their due dates

Students

- Attendance is ***not*** required (but obviously encouraged!)
- Students will abide by the University of Massachusetts policy on academic dishonesty
- Students will abide by the policy on late submissions (see below)
- To earn full credit on the homework, students must submit 10 homework assignments

Policy on Use of Artificial Intelligence

Where appropriate, I will permit use of artificial intelligence and will indicate this ***in writing*** on the first page of the assignment. Accordingly, my policy on the use of Artificial Intelligence is the following.

Policy. Use of Artificial Intelligence on assignments and examinations without my permission is ***not allowed*** and will be handled as academic dishonesty. See below, on page 15, ***Policy on Academic Dishonesty.***”

Grade Determination (Course Score Determination and Letter Grade Determination)**Course Score determination**

	Percent of Grade
Homeworks <i>To earn full homework credit, you must complete ten (10) of 12 assignments.</i> BIOSTATS 640 has 12 assignments. To earn full credit for the homework portion of your course grade, you must complete 10 assignments . Each will be graded pass/fail and the solutions are provided (and you are welcome to consult the solutions as you go along!). Thus, the homeworks are the participation portion of your grade. <u>Late policy.</u> If you submit your work on the due date or within 48 hours, your score will be 100. Late homework submitted late, but no later than one week, will be given a score of 80. Homeworks submitted more than one week late will be given a score of 0.	25%, <u>sub-total</u>
Exams (all open book) There are 3 tests, all open book. For each test, you are welcome to consult any resource you like, but <i>you must work independently and you are <u>not</u> allowed to consult any person except me.</i> <u>Late Policy for Exams 1 and 2</u> If you submit your exam on the due date, you will earn full credit for your work. Exams submitted late but within 48 hours will have 10 points deducted from their score. Exams submitted late but between 48 hours and 1 week will have 20 points deducted. Exams will submitted more than one week late will be given a score of 0. <u>Late Policy for Exam 3 (Final)</u> If you submit your exam on the due date, you will earn full credit for your work. Exams submitted late but within 48 hours will have 10 points deducted from their score. Exams will submitted more than 48 hours late will be given a score of 0.	75%, <u>sub-total</u> <u>as follows:</u> Best test – 40% 2nd best – 20% 3rd best – 15%

Letter grade determination. Your course score will be converted to a letter grade as follows:

A	95 and over
A-	90 - 94
B+	87 - 89
B	83 – 86
B-	80 - 82
C+	77 – 79
C	70 – 76
F	Below 70

Policy on Late Submissions

My policy on late submissions aims to be fair while at the same time accommodating those who, for whatever reason, need an extension.

	Credit Policy - Homeworks	Grading Policy Exams 1 & 2	Grading Policy Exam 3 (Final)
On Time	Full Credit for points scored	Full Credit for points scored	Full Credit for points scored
Up to 2 days late	Points Scored – 10 points	Points Scored – 10 points	Points Scored – 10 points
Up to 7 days late	Points Scored – 20 points	Points Scored – 20 points	0 points (no credit)
8+ days late	0 points (no credit)	0 points (no credit)	0 points (no credit)

Policy on Academic Dishonesty

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University.

All students are expected to adhere to guidelines of University of Massachusetts regarding academic honesty. These guidelines and additional resources are available online at

<https://www.umass.edu/honesty/>

Briefly, the University of Massachusetts/Amherst Senate Document 89-026 defines academic dishonesty as including but not limited to:

- Cheating – intentional deceit, trickery, or breach of confidence, used to gain some unfair or dishonest advantage in one's academic work.
- Fabrication – intentional falsification or invention of any information or citation in any academic exercise.
- Facilitating dishonesty – knowingly helping or attempting to help someone else commit an act of academic dishonesty.
- Plagiarism – knowingly representing the words or ideas of another as one's own work in any academic exercise.
- Submitting in whole or in part, without citation, prewritten term papers of another or the research of another (including but not limited to such materials sold or distributed commercially).

Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent. For more information about what constitutes academic dishonesty, please see the [Dean of Students website](#).

Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Complete details of the procedures and timeline are [here](#). Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. The procedures detailed [here](#) are intended to provide an efficient and orderly process by which action may be taken if it appears that academic dishonesty has occurred and by which students may appeal such actions.

Valuing, Recognizing, and Encouraging Diversity

I believe that promoting and valuing diversity in the classroom enriches learning and broadens everyone's perspectives. I also believe in inclusion, tolerance and respect for others as essential values. Where possible, I will strive to create a sense of community and promote excellence in the learning environment. With respect to diversity, I will seek out and honor (1) the variety of life experiences you have had, and (2) the factors that define your "diversity of presence," including: age, economic circumstances, ethnic identification, disability, gender, geographic origin, race, religion, sexual orientation, social position.

Names and Pronouns

If you have not already indicated your chosen first name and pronouns in SPIRE, please let me know what name and pronouns we should use for you (email: cbigelow@schoolph.umass.edu).

Title IX Statement

The University of Massachusetts Amherst is committed to fostering a safe, productive learning environment. Title IX and our school policy prohibits discrimination on the basis of sex. Sexual misconduct — including harassment, domestic and dating violence, sexual assault, and stalking — is also prohibited at our school.

UMass Amherst encourages anyone experiencing sexual misconduct to talk to someone about what happened, so they can get the support they need and our school can respond appropriately.

If you wish to speak confidentially about an incident of sexual misconduct, want more information about filing a report, or have questions about school policies and procedures, please contact our Title IX Coordinator, Débora D. Ferreira, Equal Opportunity Office (EO), 413-545- 3464, equalopportunity@admin.umass.edu.

Please be aware. UMass Amherst is legally obligated to investigate reports of sexual misconduct, and therefore it cannot guarantee the confidentiality of a report, but it will consider a request for confidentiality and respect it to the extent possible. If you want to talk with someone who is not a mandated reporter, you can contact the Center for Women and Community, (<https://www.umass.edu/cwc/>, 413-545-0883, or 24-hour hotline 413-545-0800), the Center for Counseling and Psychological Help (<https://www.umass.edu/counseling/>, 413-545-2337), or University Health Services SANE program (<https://www.umass.edu/uhs/services/sane>, 413-577-5000). Please also be aware. As an instructor, I am also required by our school to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident.

Copyright Protection

Many of the materials created for this course are my own intellectual property. These include, but are not limited to the syllabus, lectures, and course notes. Except to the extent not protected by copyright law, any use, distribution or sale of such materials requires my permission. Please be aware that it is a violation of university policy to reproduce, for distribution or sale, class lectures or class notes, unless the faculty member has explicitly waived copyright.