



Stony Brook University

BIO 211 - Statistics and Data Analysis: A Conceptual Approach

Spring 2023

Last updated Jan 23, 2023

Important Note: Every effort will be made to avoid changing the course schedule, but the possibility exists that unforeseen events will make syllabus changes necessary. It is your responsibility to check BrightSpace for corrections or updates to the syllabus. Any changes will be clearly noted in course announcements or through Stony Brook email.

TABLE OF CONTENTS

- [Course Information](#)
- [Learning Objectives and Assessments](#)
- [Course Schedule](#)
- [Grading, Attendance, Late Work Policies](#)
- [University and Course Policies](#)
- [Student Resources](#)

Part 1: Course Information

Course title: Statistics and Data Analysis: A Conceptual Approach

Course catalog # and section: BIO 211

Credit hours: 4

General education designation: SBC STEM+

Pre- or Corequisite: MAT 123 or higher, or level 4 or higher on the mathematics placement examination. May not be taken by students with credit in AMS 110, 310, 311, 412, EBH 230, or ECO 320.

INSTRUCTOR CONTACT INFORMATION

Instructor name: Professor Pascal Title

Instructor's email: pascal.title@stonybrook.edu

Office hours:

- Wednesdays 10-11am via zoom (see BrightSpace Instructor Info for zoom link).
- Additional office hours will also be available (in person or via zoom) by appointment.
- I will also respond to email inquiries during office hours.



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Teaching Assistant: Anna Thonis

email: anna.thonis@stonybrook.edu

office hours: Thursdays 2:30 – 3:30pm hybrid
(see BrightSpace Instructor Info for zoom link)

COURSE DESCRIPTION

A conceptually focused introduction to probability and data analysis emphasizing statistical literacy and critical thinking. Topics will include probability, t-tests, chi-squared tests, correlation, regression, and Analysis of Variance, as well as special topics of interest to undergraduate Biology majors such as case-control studies and meta-analysis. This course includes a one-hour recitation in which students will do hands-on activities, discuss papers from the primary literature, and gain experience with data analysis. May not be taken by students with credit for AMS 110, 310, 311, 412, EBH 230, or ECO 320.

MEETING TIMES

Lectures: Tuesday & Thursday 9:45 am – 11:05 am, in person at 317 Frey Hall

Recitation: Thursday 1:15 pm – 2:10 pm, **online** synchronous meeting on Zoom

Lecture Format: Before each lecture period, you are expected to view an introduction to that day's topic, which will be delivered through a narrated PowerPoint uploaded to BrightSpace. During lecture times, you will work in groups to solve problems on graded worksheets. Attendance is required.

Recitation Format: During recitation times, you will work individually or in groups over Zoom to complete a computer-based assignment, which will be available through the BIO 211 BrightSpace page. Attendance is required and will be recorded.

During the recitation time periods, a Zoom meeting will be accessible through BrightSpace. The Zoom meeting will be used to facilitate more involved guidance, questions, discussions with the instructors, and break-out groups.

TA responsibilities: The TA will be present during class time (as will the primary instructor) to assist with questions regarding in-class activities and recitations. The TA will also introduce recitations to the class via Zoom. Additionally, the TA will hold office hours to answer questions and address student concerns, and will assist in grading assignments.

REQUIRED COURSE TEXTBOOK AND MATERIALS

OpenStax: <https://openstax.org/details/books/introductory-statistics> “OS”

Conceptual: <http://www.cios.org/readbook/rmcs/rmcs.htm> “RMCS”

The pdf files of these textbooks are also available on BrightSpace.

Practical: <http://biostathandbook.com/>

For data project: <http://www.biostathandbook.com/testchoice.html>

Software

The software, Microsoft Excel, used by this course is accessible through a connection to a Virtual SINC site. To establish a connection to a Virtual SINC site, follow the instructions at the following link: <https://it.stonybrook.edu/services/virtual-sinc-site>

COURSE DELIVERY MODE AND STRUCTURE

This is a hybrid course, delivered in part via the BrightSpace learning management system (LMS). We will meet in person for lectures, and use Zoom meetings for recitations to enable synchronous discussions and group work. You must be mindful of all course expectations, deliverables and due dates, especially because this course requires significant time management. All assignments and course interactions will utilize internet technologies. See the “Technical Requirements” section for more information. In BrightSpace, you will access online lessons, course materials, and resources. Learning modules and deadlines are provided in the class schedule below.

HOW WE WILL COMMUNICATE

Course-related questions should be posted in the General Questions Forum in the course Discussion board. For personal/private issues, email me directly. **Please allow between 24-48 hours for an email reply.** Your Stony Brook University email must be used for all University-related communications. You must have an active Stony Brook University email account and access to the Internet. All instructor correspondence will be sent to your SBU email account. **Plan on checking your SBU email account regularly for course-related messages.** To log in to Stony Brook Google Mail, go to <http://www.stonybrook.edu/mycloud> and sign in with your NetID and password.

Regular announcements will be sent from BrightSpace. These will be posted in the course site and may or may not be sent by email.

TECHNICAL REQUIREMENTS

This course uses BrightSpace for the facilitation of communications between faculty and students, submission of assignments, and posting of grades and feedback. The Brightspace course site can be accessed at <https://it.stonybrook.edu/services/brightspace>

If you are unsure of your NetID, visit <https://it.stonybrook.edu/help/kb/finding-your-netid-and-password> for more information. You are responsible for having a reliable computer and Internet connection throughout the term. **Caution!** You will be at a disadvantage if you attempt to complete all coursework on a smart phone or tablet. It may not be possible to submit the files required for your homework assignments.

Students should be able to use email, a word processor, spreadsheet program, and presentation software to complete this course successfully.

The following list details a minimum recommended computer set-up and the software packages you will need to have access to, and be able to use:

- PC with Windows 10 or higher (we recommend a 3-year Warranty)
- Macintosh with OS 10.11 or higher (we recommend a 3-year Warranty)
- Intel Core i5 or higher
- 250 GB Hard Drive
- 8 GB RAM
- Latest version of Chrome or Firefox; Mac users may use Chrome or Firefox.
- High speed internet connection
- Word processing software (Microsoft Word, Google Docs, etc.)
- Headphones/earbuds and a microphone
- Webcam (recommended)
- Printer (optional)
- Ability to download and install free software applications and plug-ins (note: you must have administrator access to install applications and plug-ins).

TECHNICAL ASSISTANCE:

If you need technical assistance at any time during the course or to report a problem with BrightSpace you can:

- Phone: 631-632-9800 (client support, Wi-Fi, software and hardware)
- Submit a help request ticket: online.suny.edu/help
- If you are on campus, visit the Walk-Up Tech Support Station in the Educational Communications Center (ECC) building.

Part 2: Course Learning Objectives and Assessments

COURSE GOALS

This is an undergraduate dual lecture/recitation course focusing on the analysis and interpretation of biological data in light of statistical principles. At the end of this course the student should:

- Be able to describe the ways in which scientists use quantitative and statistical tools to test hypotheses and gain understanding about biological patterns and processes;
- Be able to develop, formulate, execute, and interpret statistical tests of biological hypotheses using quantitative data;
- Be able to organize, analyze, and interpret biological data to communicate with others;
- Be able to evaluate and critique statistical results in the scientific literature and its derivatives.

CLASS PROTOCOL

- We encourage the use of pen/pencil and a physical notebook for taking notes.
- Feel free to ask questions at any time during live sessions. There will be active interaction with other students at times. It is, however, disruptive and rude to other students to speak as the instructor is lecturing. Please mute microphones during Zoom sessions, and only turn them on when participating.
- You must have a BrightSpace account with a **valid, current email address**. You should log in as soon as possible and confirm your e-mail address.
- Be respectful and prepared for remote recitation sessions. Decorum on conference calls should be considered the same as attending an in-person lecture or lab.

HOW TO SUCCEED IN THIS COURSE

- Complete all assigned readings in the course.
- Watch all of the recorded lectures.
- Complete all quizzes, lecture activities, recitations, homework assignments, and your data analysis project on time.
- Take advantage of office hours and reach out to me and the graduate TA for assistance.

Part 3: Course Schedule

subject to changes

The following is a schedule of lectures, activities, quizzes, and homework assignments.

All listed times are in **Eastern Standard Time.**

Date	Topic	Learning objective	Reading (pp. from RMCS = Research Methods For Communication Science; OS = OpenStax)
24-Jan	Unit 1: Intro to nature of science & group topics.	To demonstrate scientific model development.	RMCS: Chapter 1, pp. 3-6 (Naive Inquiry Versus Scientific Method). Activity: Mystery boxes. Background video: https://www.youtube.com/watch?v=-M1hxGj5bMg HOMEWORK: Complete Pre-Test before 11:59 pm EST, 29 Jan.
26-Jan	Unit 1: Nature of science: comparing models.	To demonstrate scientific model comparison.	RMCS: Chapter 1, pp. 6-10 (Methods of Knowing); RMCS: Chapter 8 pp. 100-104 (<i>Description by Visual Presentation</i>). Activity: What causes stomach ulcers?
26-Jan	Unit 1: Intro to plotting data.	To assess clarity and purpose of plots.	WEEK 1. Recitation: Lab Introduction & student data sheet 1. OS: Chapter 1 and Chapter 2 (pp. 67-100). Due 27 Jan, 11:59pm EST.
31-Jan	Unit 2: Central tendency.	To interpret and identify appropriate measures of central tendency.	OS: pp. 100-125; RMCS: Chapter 7, pp. 84-88 (Measurement); RMCS: Chapter 8, pp. 105-111 (Mean, mode, median and comparisons); http://www.biostathandbook.com/variabletypes.html
2-Feb	Unit 2: Variance & standard deviation	To interpret measures of variation.	OS: pp. 100-125; RMCS: Chapter 8, pp. 112-116 (Measures of Dispersion, can skip kurtosis); http://www.biostathandbook.com/dispersion.html .

2-Feb	Unit 2: Collecting biological data.	To calculate descriptive statistics from biological data.	WEEK 2. Recitation: Beaks as tools & student data sheet 1 (if you missed first week). Background reading: Grant (1991). Due 3 Feb, 11:59pm EST.
7-Feb	Unit 2: Analyzing biological data.	To calculate the mean and standard deviation from an experiment.	OS: pp. 100-125; RMCS: Chapter 3, pp. 23-27 (Elements of Scientific Theories: Relationships). Activity: interpreting the results of beaks as tools dataset.
9-Feb	Unit 2: Confidence intervals.	To interpret and explain confidence intervals.	OS: 445-454; http://www.biostathandbook.com/confidence.html Quiz 1 available, due 16 Feb by 11:59pm EST.
9-Feb	Unit 2: Calculating and displaying variance.	To calculate simple measures of variation.	WEEK 3. Recitation: Evolution in action. Background video: http://www.hhmi.org/biointeractive/origin-species-beak-finch Due 10 Feb, 11:59pm EST.
14-Feb	Unit 3: Population and sample; “Law” of small numbers.	To distinguish between sample and population. To relate sampling error to sample size for discrete data.	OS: Chapter 1; RMCS: Chapter 5, pp. 50-53 (Populations and Samples, you can skip Response bias). pp. 54-61 (Sampling Error). Activity: Sampling small seashells. Predict proportions from discrete trait in shells. Homework 1 assigned. Due 28 Feb by 11:59pm EST.
16-Feb	Unit 3: Genetic drift, bottlenecks and sampling error.	To relate sampling to genetic consequences.	OS: Chapter 1; RMCS: Chapter 6, pp. 62-67 (Sampling). Activity: Simulate a genetic bottleneck. Quiz 1 due.
16-Feb	Unit 3: Visualizing and analyzing sampling error.	To relate sampling size to sampling error.	WEEK 4. Recitation: Sampling shells. Due 17 Feb, 11:59pm EST.

21-Feb	Unit 3: Sampling distributions.	To connect the mean to its sampling distribution.	RMCS: Chapter 9, pp. 119-127 (Population, Sample and Sampling Distributions); OS: Chapter 4 and Chapter 5.
23-Feb	Unit 3: Standard error and sampling distributions.	To calculate and explain SE of the mean and proportions.	RMCS: Chapter 9, Table 9-6, pp. 128-129 (Factors affecting sampling error); OS: Chapter 7; http://www.biostathandbook.com/standarderror.html http://www.biostathandbook.com/confidence.html Confidence limits for nominal variables Data project part 1 due
23-Feb	Unit 3: Summarizing data.	To calculate basic summary statistics on the computer.	WEEK 5. Recitation: Describing data and estimation. Due 24 Feb, 11:59pm EST.
28-Feb	Unit 4: Introduction to probability.	To derive binomial probability and connect to the shell exercise.	RMCS: Chapter 6, pp. 65-66 (Probability); OS: Chapter 3; http://www.biology.arizona.edu/biomath/tutorials/polynomial/applications/Binomial.html (try and solve questions 3 and 4) Activity: Purely random sequence vs. what people naively generate as random sequences. Homework 1 due. Quiz 2 available, due 7 March by 11:59pm EST.
2-Mar	Unit 4: Rules of probability	To apply the sum and product rules of probability.	OS: Chapter 3; http://www.biostathandbook.com/probability.html Activity: Rock pocket mouse. Background video: http://www.hhmi.org/biointeractive/making-fittest-natural-selection-and-adaptation Homework 2 assigned, due 21 March by 11:59pm EST.

2-Mar	Unit 4: Genetics as probabilistic model I.	To relate frequencies to probability in genetics.	WEEK 6. Recitation: The mating game. Due 3 Mar, 11:59pm EST.
7-Mar	Unit 4: Conditional probability	To apply the principles of conditional probability.	Conditional probability https://www.radford.edu/rsheehy/Gen_flash/Tutorials/Probability_tutorial/prob-tut.htm (try and solve the two problems) Activity: Real clinical trial false alarm rates and detection probability exercise. Quiz 2 due.
9-Mar	Unit 4: Laws of probability and their applications.	To manipulate probabilities in biological processes.	Binomial neurons, Punnett squares, pedigree Activity: practice problems for probability.
9-Mar	Unit 4: Genetics as probabilistic model II.	To compare expected and observed frequencies.	WEEK 7. Recitation: Sickle-cell genetics, part I. Background video: http://www.hhmi.org/biointeractive/making-fittest-natural-selection-humans Due 10 Mar, 11:59pm EST.
13-17 Mar	SPRING RECESS!		
21-Mar	Unit 4/5: Binomial probability distribution and sampling distribution of proportions	To understand binomial distribution as sampling distribution of proportions. Introduction to chi-squared test.	RMCS: Chapter 10, pp. 139-142 (The sampling distribution of means and probability); http://www.biostathandbook.com/chigof.html http://www.biostathandbook.com/chiind.html (don't stress out about the hypothesis tests on these sites); https://seeing-theory.brown.edu/probability-distributions/index.html#section2 (Discrete and Continuous). OS: Ch 11, pp 623-678 (chi-square test) Activity: Discover null hypothesis testing from binomial probabilities Homework 2 due.

23-Mar	Unit 5: Introduction to hypothesis testing.	Identify continuous vs discrete distributions. To interpret area under distribution curve as probability. To formulate null hypothesis and make a rejection criterion.	http://www.biostathandbook.com/hypothesistesting.html Activity: What kind of data do I have? Quiz 3 available, due 30 March by 11:59pm EST.
23-Mar	Unit 5: Comparing models to frequency data.	To compare expected and observed frequencies.	WEEK 8. Recitation: Sickle-cell genetics, part II. Background video: http://www.hhmi.org/biointeractive/making-fittest-natural-selection-humans Due 24 Mar, 11:59pm EST.
28-Mar	Unit 5: Hypothesis testing in detail.	To correctly interpret p-value.	RMCS: Chapter 12, pp. 165-171 (Testing hypotheses, focus on rejection region); http://www.biostathandbook.com/multiplecomparisons.html Activity: Null hypothesis test concepts
30-Mar	Unit 5: Normal distribution, central limit theorem & the law of large numbers.	To predict the convergence of distributions to normal distribution.	RMCS: Chapter 10, pp. 136-139 (Central limit theorem); https://seeing-theory.brown.edu/#secondPage/chapter3 (Central limit theorem). OS: Chapter 7 Quiz 3 due.
30-Mar	Unit 5: Common distributions.	To familiarize with continuous and discrete distributions	WEEK 9. Recitation: Sample from various distributions, generate summary statistics, and visualize histograms. Due 31 Mar, 11:59pm EST.

4-Apr	Unit 6: Revisiting hypothesis testing.	To relate statistical significance to statistical power and effect size.	OS: Chapter 9; RMCS: Chapter 12, pp. 178-182 (Errors in hypothesis testing); https://seeing-theory.brown.edu/frequentist-inference/index.html <i>P</i> values. Activity: Weighing a “random” sample. Homework 3 assigned, due 18 April by 11:59pm EST. Quiz 4 available, due 11 April by 11:59pm EST.
6-Apr	Unit 6: Introduction to <i>t</i> -tests.	To determine when either paired or unpaired <i>t</i> -tests is appropriate.	OS: Chapter 9 http://www.biostathandbook.com/twosamplettest.html http://www.biostathandbook.com/pairedttest.html
6-Apr	Unit 5: Connecting confidence intervals to hypothesis testing.	To use confidence intervals to infer differences between groups.	WEEK 10. Recitation: Salivary amylase (part B). Background video: http://www.hhmi.org/biointeractive/making-fittest-got-lactase-co-evolution-genes-and-culture Due 7 Apr, 11:59pm EST.
11-Apr	Unit 6: Continuation of <i>t</i> -tests.	To understand hypothesis testing using <i>t</i> -tests.	OS: Chapter 9 http://www.biostathandbook.com/twosamplettest.html http://www.biostathandbook.com/pairedttest.html Quiz 4 due.
13-Apr	Unit 6: Comparing means from more than two groups: ANOVA.	To explain the principles behind ANOVA.	OS: Chapter 13 http://www.biostathandbook.com/onewayanova.html https://seeing-theory.brown.edu/#secondPage/chapter6 (Analysis of Variance). Activity: Comparing seashells. Homework 4 assigned, due 27 April by 11:59pm EST. Data Project part 2a is due.
13-Apr	Unit 6: Comparing means using <i>t</i> -tests.	To implement single-sample, paired, and unpaired <i>t</i> -tests.	WEEK 11. Recitation: Comparing two groups & student data sheet 8. Due 14 Apr, 11:59pm EST.

18-Apr	Unit 6: Nonparametric comparisons of means.	To explain the difference between parametric and non-parametric comparisons between means.	http://www.biostathandbook.com/normality.html http://www.biostathandbook.com/kruskalwallis.html Activity: Nonparametric Examples. Homework 3 due.
20-Apr	Unit 7: Correlation.	To interpret the results of correlation analyses.	OS: Chapter 12 http://www.biostathandbook.com/linearregression.html Activity: Developing an intuition for correlation coefficient r .
20-Apr	Unit 6: Implementing ANOVA using software.	To compare the means of multiple groups using ANOVA.	WEEK 12. Recitation: Comparing more than two groups: ANOVA. Due 21 Apr, 11:59pm EST.
25-Apr	Unit 7: Regression	To interpret slope and intercept in linear regression.	OS: Chapter 12 http://www.biostathandbook.com/linearregression.html https://seeing-theory.brown.edu/#secondPage/chapter6 (Ordinary Least Squares) Activity: Group work on Homework 5 Quiz 5 available, due 2 May by 11:59pm EST. Homework 5 assigned, due 4 May by 11:59pm EST.
27-Apr	Unit 7: Pitfalls in regression.	To interpret results and fits of linear regression.	OS: Chapter 12 http://www.biostathandbook.com/linearregression.html https://seeing-theory.brown.edu/#secondPage/chapter6 (Ordinary Least Squares) http://www.colby.edu/bio/statistics-and-scientific-writing/regression-analysis/ Activity: Group work on Homework 5 Homework 4 due. Quiz 6 available, due 4 May by 11:59pm EST.

27-Apr	Unit 7: Linear models.	To implement univariate linear regression.	WEEK 13. Recitation: Correlation and regression. Due 28 Apr, 11:59pm EST.
2-May	Unit 7: Logistic regression.	To interpret the results of logistic regression models.	http://www.biostathandbook.com/simplelogistic.html Activity: Understanding odds ratio for disease diagnosis. Quiz 5 due.
4-May	Unit 7: Review	To distinguish between statistical significance and biological meaning.	Review for Final Exam Homework 5 due. Quiz 6 due. Final Project Due by 11:59pm EST.
4-May	Unit 7: Review	To complete the course project	WEEK 14. Recitation: Completion of Course Project
8-10 May	Final Exam	Online.	The official final exam time is 9 May, 8am – 10:45am EST. Complete the final exam between 8am, 8 May and 11:59pm EST, 10 May.

Part 4: Grading, Attendance, and Late Work Policies**ASSESSMENT AND GRADING:**

In this course, you will be assessed through the following activities. Please see the [Course Schedule](#) for deadlines.

1. Unit Quizzes 350 (best 5 of 6, 70 points each)

There are six learning units in the class. A quiz at the end of each learning unit will help evaluate your progress and contribute to your grade. Each quiz will be based on all information presented in prior lectures, readings, in-class exercises, discussions, homework, and recitation. Quizzes will be designed to take 30 minutes, and you will have 2 attempts and no time limit.

2. Homework assignments 140 (5, 28 points each)

Five individual homework assignments with instructions will be posted on BrightSpace. The results and interpretation of each assignment will be due one week after being assigned.

3. Lecture worksheets 120 (12 graded, 10 points each)

Lecture-related activities will be part of the material each week. You will complete some of these activities in groups, utilizing BrightSpace discussion board and Voice Threads to work together. Out of all of the activities, ten will be graded and contribute to your overall grade.

4. Lecture participation 100

Each week, you will respond to a set of live clicker questions in class. These are meant to capture attendance and assess comprehension, and will account for 75 of these points. The remaining 25 points will be allocated to peer evaluation of group lecture activities.

5. Recitations 150 (10 graded, 15 points each)

A recitation will be assigned each week, and will be due by the end of the following day. Recitations require submitting answers to questions, graphs, and/or a brief summary. Ten of the recitations will be graded.

6. Data analysis project 120

You will find your own dataset, identify a hypothesis, and carry out statistical analyses to address a particular topic of interest to you. More information on the data analysis project will be provided. 5% of these points will be allocated to peer evaluation of contribution to the project. *Note that if you do not contribute at all to the project, you will not get any amount of the 120 points.*

7. Final exam 70

The final exam will be based on all information presented throughout the course and will be designed to take approximately 70 minutes. You will have 2 attempts at the exam with a 2-hour time limit, over a 3-day period.

TOTAL POINTS 1050

LETTER GRADE ASSIGNMENT

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

Letter Grade*	Total Points	Performance
A	> 970	Excellent Work
A-	940-970	Nearly Excellent Work
B+	908-939	Very Good Work
B	866-907	Good Work
B-	835-865	Mostly Good Work
C+	803-834	Above Average Work
C	730-802	Average Work
D	625-729	Below Average Work
F	< 625	Failing Work

ATTENDANCE AND QUIZ MAKE-UP POLICY

Attendance in this course is demonstrated by the completion of clicker questions, as well as of lecture activities, homework assignments, unit quizzes and recitations.

The lowest-grade quiz will be dropped from your grade. If you miss more than one quiz, or a homework assignment because of an illness or emergency, you may take a make-up quiz or assignment. In such an event, you will need to present documentation verifying your excused absence. If you provide a false excuse or falsified documentation, you will be reported to the academic judiciary. You will also be given a zero (**no credit**) for the assignment or quiz/exam.

Not having registered for the course at the time of an assignment is not a valid excuse for not turning in the assignment. If you register late for the course and miss an assignment, you will not get credit for the missed assignment.

MISSED LECTURE ACTIVITIES

If you are absent for lecture, whether it is excused or not, you can either not turn in the lecture activity for that day (and receive no credit), or you can complete the activity yourself on your own and turn it in at the next lecture. That is of course preferable because lecture activities give you exposure and practice for the concepts we are covering.

If the activity was hands-on, and data were collected in class, then you should reach out to your usual group and ask them to share the collected data with you, so that you can complete the rest of the activity.

LATE ASSIGNMENTS

You must submit your work on time. **Note that deadlines are listed in Eastern Standard Time.** Should you decide to submit your work late, the penalty will be 15% of the points for each day your work is late. Beyond 7 days, your grade for the assignment will be 0.

VIEWING GRADES ON BRIGHTSPACE

Points and feedback for graded activities will be posted to BrightSpace. Assignments will be graded within 2 weeks of the submission deadline.

Part 5: University and Course Policies

University Policies:

Student Accessibility Support Center Statement:

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation are confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information go to the following website: <https://ehs.stonybrook.edu/programs/fire-safety/emergency-evacuation/evacuation-guide-people-physical-disabilities> and search Fire Safety and Evacuation and Disabilities.

Academic Integrity Statement:

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Important Note: Any form of academic dishonesty, including cheating and plagiarism, will be reported to the Academic Judiciary.

Critical Incident Management:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Student Conduct and Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

Course Policies:**Understand When You May Drop This Course:**

It is the student's responsibility to understand when they need to consider withdrawing from a course. Refer to the Stony Brook Academic Schedule for dates and deadlines for registration: http://www.stonybrook.edu/commcms/registrar/calendars/academic_calendars.

- [Undergraduate Course Load and Course Withdrawal Policy](#)
- [Graduate Course Changes Policy](#)

Incomplete Policy:

Under emergency/special circumstances, students may petition for an incomplete grade. Circumstances must be documented and significant enough to merit an incomplete. If you need to request an incomplete for this course, contact me for approval as far in advance as possible.

Course Materials and Copyright Statement:

Course material accessed from BrightSpace, SB Connect, SB Capture or a Stony Brook Course website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot be reused or distributed without written permission of the instructor and/or the copyright holder. Duplication of materials protected by copyright, without permission of the copyright holder is a violation of the Federal copyright law, as well as a violation of Stony Brook's Academic Integrity.

Online Communication Guidelines and Learning Resources:

Maintain professional conduct both in the classroom and online. The classroom is a professional environment where academic debate and learning take place. I will make every effort to make this environment safe for you to share your opinions, ideas, and beliefs. In return, you are expected to respect the opinions, ideas, and beliefs of other students—both in the face-to-face classroom and online communication. Students have the right and privilege to learn in the class, free from harassment and disruption. The course follows the standards set in the Student Code of Conduct, and students are subject to disciplinary action for violation of that code. If your behavior does not follow the course etiquette standards stated below, the grade you receive for a posting may suffer. I reserve the right to remove any discussion messages that display inappropriate language or content.

Online Etiquette:

- Offensive language or rudeness will not be tolerated. Discuss ideas, not the person.
- Avoid cluttering your messages with excessive emphasis (stars, arrows, exclamations).
- If you are responding to a message, include the relevant part of the original message in your reply, or refer to the original post to avoid confusion;
- Be specific and clear, especially when asking questions.
- Use standard punctuation and capitalization. Using all UPPERCASE characters gives the appearance of shouting and makes the message less legible;
- Remember that not all readers have English as their native language, so make allowances for possible misunderstandings and unintended discourtesies.

Online Classes Require Better Communication:

It is important to remember that we will not have the non-verbal cues that occur in a face-to-face classroom. I cannot see the confused, frustrated, or unhappy expressions on your face if you encounter problems. You **MUST** communicate with me so that I can help. To make the experience go smoothly, remember that you're responsible for initiating more contact, and being direct, persistent, and vocal when you don't understand something.

My Role as the Instructor:

As the instructor, I will serve as a "guide" in our online classroom. While I will not respond to every post, I will read what is posted, and reply when necessary. Expect instructor posts in the following situations:

- To assist each of you when it comes to making connections between discussion, lectures, and textbook material.
- To fill in important things that may have been missed.
- To re-direct discussion when it gets "out of hand."
- To point out key points or to identify valuable posts.

Part 6: Student Resources

Academic and Major Advising (*undergraduate only*): Have questions about choosing the right course? Contact an advisor today. Phone and emails vary-please see website for additional contact information; website: <https://www.stonybrook.edu/for-students/academic-advising/>

Academic Success and Tutoring Center (*undergraduate only*):
<https://www.stonybrook.edu/tutoring/>

Amazon @ Stony Brook: Order your books before classes begin. Phone: 631-632-9828; email: Bookstore_Liaison@stonybrook.edu; website: <http://www.stonybrook.edu/bookstore/>

Bursar: For help with billing and payment. Phone: 631-632-9316; email: bursar@stonybrook.edu; website: <http://www.stonybrook.edu/bursar/>

Career Center: The Career Center's mission is to support the academic mission of Stony Brook University by educating students about the career decision-making process, helping them plan and attain their career goals, and assisting with their smooth transition to the workplace or further education. Phone: 631-632-6810; email: sbucareercenter@stonybrook.edu; website: <http://www.stonybrook.edu/career-center/>

Counseling and Psychological Services: CAPS staff are available by phone, day or night. <http://studentaffairs.stonybrook.edu/caps/>

Ombuds Office: The Stony Brook University Ombuds Office provides an alternative channel for confidential, impartial, independent and informal dispute resolution services for the entire University community. We provide a safe place to voice your concerns and explore options for productive conflict management and resolution. The Ombuds Office is a source of confidential advice and information about University policies and procedures and helps individuals and groups address university-related conflicts and concerns. <http://www.stonybrook.edu/ombuds/>

Registrar: Having a registration issue? Let them know. Phone: 631-632-6175; email: registrar_office@stonybrook.edu; <http://www.stonybrook.edu/registrar/>

SBU Libraries: access to and help in using databases, ebooks, and other sources for your research.

- Research Guides and Tutorials: <http://guides.library.stonybrook.edu/>
- Getting Help: <https://library.stonybrook.edu/research/ask-a-librarian/>

Student Accessibility Support Center: Students in need of special accommodations should contact SASC. Phone: 631-632-6748; email: sasc@stonybrook.edu; <https://www.stonybrook.edu/sasc/>

Support for Online Learning: <https://www.stonybrook.edu/online/>

Writing Center: Students are able to schedule face-to-face and online appointments. <https://www.stonybrook.edu/writingcenter/>