



*MAT122 – Overview of Calculus with Applications  
Online Syllabus  
Spring 2022*

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### Course Information

**Credit hours: 3**

### **Course Meeting Time/Delivery Mode**

Lectures are prerecorded and can be found on Blackboard. Recitations are held synchronously on Zoom (get Zoom Link(s) from Blackboard) – check SOLAR for date/time.

**General education designation(s) (SBC):** DEC: C; SBC: QPS

**Prerequisites:** C or better in MAP 103 or level 3 or higher on the mathematics placement examination.

### **Required Course Textbooks and Materials**

There is no textbook to buy for the course but, after a free 2-week trial, you must purchase access to the [homework](#) platform, **MyLab**. The ebook, *Calculus and its Applications, 11e* by Bittinger/Ellenbogen/Surgent, is bundled with MyLab.

Gradescope will be used to submit completed quizzes and tests. An invitation to join will be sent to your SB email towards the end of Week 1.

**Calculator:** You may use *any* calculator when learning the material, doing homework, taking quizzes and midterms\*.

\*you'll be expected to graph basic functions and corresponding transformation indicating intercepts, extrema, etc. It will not be sufficient to rely solely on a graphing calculator. Answers must be exact (containing fully reduced fractions and/or radicals where appropriate) not rounded decimals.

**Course Description:** This course covers both differential and integral calculus and explores the relationship between them. There will be a review of precalculus at the beginning of the course.

### **Course Delivery Mode and Structure:**

This is an online course. All assignments and course interactions will utilize internet technologies. See “Technical Requirements” section for more information. In Blackboard, you will access to prerecorded lectures, course materials and resources.

Each week has pre-recorded lecture videos for you to watch at your convenience with a corresponding MyLab assignment for you to complete. Even though a PDF of the Power Point slides will also be provided, take notes from the videos as if you were in a live lecture – this will help you better retain the material plus you'll be able to better identify what you don't understand.

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Lectures generally appear on Blackboard Fridays at 4pm ET; the corresponding homework assignment then appears on MyLab the following Wednesday at 4pm ET and is due the following Wednesday at 11:59pm ET. Week 1 material will be posted the night before the semester begins.

### **Recitation**

In addition to watching lecture videos, you are also expected to attend a weekly recitation via Zoom (links are on Blackboard – click “Recitation Zoom Links/Recording”).

Recitation is your opportunity to ask questions regarding homework problems as well as to get any clarification on lecture material. Work through MyLab homework problems in advance and **be prepared** to ask questions.

A quiz will be given most weeks in recitation (see next section).

### **Quizzes**

Quizzes are open book – you have 15 minutes to complete two questions and upload your solution page. Late submissions are not accepted. It's generally based on the previous week's material (posted on weekly To Do Checklist). Study your lecture notes and MyLab problems to know what to expect. Since quizzes are worth 30% of the course grade, study for them as if they are closed book. See [Assessment and Grading](#) section below for more information.

### **Instructor Information**

**Instructor name:** Deb Wertz Krieg

**Instructor's Stony Brook email:** [debra.krieg@stonybrook.edu](mailto:debra.krieg@stonybrook.edu)

**Instructor's phone number:** n/a

**Instructor's time zone:** Eastern Standard Time

### **Q&A Sessions/Zoom Personal Meeting Room**

[click here for Prof Wertz Krieg's contact card](#)

Every week, besides recitation, office hours are held for you to ask about material, homework and/or general course questions. Click on link(s) above to find time slots as well as the Zoom link(s). No appointment necessary. If you are unavailable during the scheduled times, send an email to request meeting at a different time.

**TA Information:** n/a

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### How We Will Communicate

Regular, professional and respectful communication is essential in online classes. Review the [Online Communication Guidelines](#) carefully and contact me with any questions you may have.

To make sure you are receiving all communication in this course:

- Log into Blackboard once a day, check announcements.
- Regular announcements will be posted in Blackboard: most (not all) are also sent to your SB email.
- For personal/private issues, email me directly. If you use Blackboard's **email tool** from the course site, it will automatically include your full name, course name and section when you send me an email. **Please allow between 24-48 hours for an email reply** although I generally reply within 6 hours.
- Your Stony Brook University email must be used for all University-related communications. 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.

### How to Succeed in this Course

Online learning requires more from students. You will need to take greater responsibility for managing your time and participating fully in the class. For asynchronous classes, you should set aside 5-10 hours per week.

Keep track of all due dates and plan ahead.

ASK for help:

A common **mistake** for this course structure is for students to treat it as a self-study format. I'm happy to answer questions you have about the material or to discuss any concerns that you have with the course. If you are struggling to understand a topic, ask me to clarify it rather than looking at sites such as Khan Academy or trying to find a relevant YouTube video.

There are multiple university offices and help desks that are available to assist you with everything from advising, tutoring, accessibility, online-specific support and much more.

Besides recitation, you can also get homework help from the [Math Learning Center](#) . This is a free service.

Review some [Academic Success Strategies](#) and visit the [Student Resources](#) page to ensure your success in this course.

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### Part 2: Grading, Attendance and Late Work Policies

#### Assessment and Grading

In this course, your letter grade will be assessed based on the following weights:

Activity/Assignment	Percentage	Due Date
Weekly Quiz	30%	
Midterm #1	15%	See Curriculum
Midterm #2	15%	See Curriculum
Final Exam	25%	See Curriculum
Weekly Homework Assignment	15%	

**Letter Grades:** Course grades are determined based on the breakdown of the class's weighted average (see weights above) and your mastery of the material. There are no predetermined cutoffs for course grades. Grades are decided based on performance not a bell-shaped curve. For example, there is not a limit on the number of A's given.

#### **Assessment Formats:**

Quizzes and exams are OPEN book but not open browser meaning exams containing solutions that appear to have been obtained from a derivative/integral calculator or as a result of collaboration will be reported for [academic dishonesty](#) (see below).

Quizzes will consist of 2 short answer questions and are taken during recitation. See quiz [makeup policy](#)\* below.

Exams are held during recitation and will consist of 5-8 short answer questions; the final is cumulative with a heavy emphasis on material covered since second midterm. See exam [makeup policy](#)\*\*\* below. Have photo ID on hand.

A calculator is permitted for arithmetic and reducing fractions only.

For short answer questions, partial credit is given where appropriate. *Full justification must be shown to receive full credit.* In addition to computational and application problems, be prepared to explain a concept in 1-2 sentences.

For assessments on Zoom, your video must be on, no virtual background/filters. **Work submitted after you have logged out of Zoom will not be accepted.** You have a fixed time to complete and submit quizzes and exams.

Extra credit opportunities are not an option to compensate for low exam scores.

See [Undergraduate Grading System](#) for information about GPNC, withdrawal, Incompletes, etc.

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### **Homework**

**MyLab** will be used for web-based homework assignments and can be accessed through [Blackboard](#) menu – no course key or login is needed. Access to MyLab is free for the first two weeks of the semester but then must be purchased. Pearson does not give refunds – don't purchase the access if you might switch out of the course.

Contact [Pearson Support](#) to resolve any licensing issues or if you receive error messages.

### **Homework Guidelines:**

1. Working through problems is crucial to understanding math. A weekly assignment will generally appear Wednesday at 4pm ET and is to be completed on the following Wednesday at 11:59pm ET.
2. By design, the level of difficulty for some of the homework questions is higher than those given in lecture. Expect to need help completing the assignment. You can ask questions during recitation, office hours, on discussion board, via email (include a picture of your work) and/or at the [Math Learning Center](#).
3. Don't rush through the assignment with the sole goal of getting a high score. Work through the problems again in practice mode until you are able to solve them in a quiz or exam environment.
4. See [makeup policy](#)\*\* below.

### **Makeup Policy**

\* Quizzes cannot be made up but the 2 lowest scores will be dropped at the end of the semester so that situations such as illness, connectivity problems and late registration will not have a negative impact on your course grade.

\*\* Strive to complete homeworks in a timely fashion. The hands-on practice with the material will greatly enable you to comprehend the subsequent content. I understand that occasionally events such as work shifts, exams in other courses, illness and family events will make it implausible to complete an assignment. When this happens, you can receive a 48-hour extension on the due date by sending your recitation instructor a request via email.

\*\*\*If a midterm is missed due to a documented emergency, the final exam score will double as the midterm score. If the absence is not excused, your score will be zero. If the final exam is missed due to a documented emergency, an Incomplete may be given as the course grade and you must make arrangements with me to take the final the next time it's offered. *[see University Policies below for more info on taking an Incomplete.]*

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### Part 3: Course Schedule

Curriculum contains topics that will be covered in the course, pacing of topic introduction as well as **exam dates** and University deadlines. The Curriculum is posted on Blackboard under Resources. The possibility exists that unforeseen events will make schedule changes necessary. Any changes will be clearly noted on the Curriculum and in Course Announcements.

### Part 4: Technical Requirements

Having a reliable computer and Internet connection throughout the term is required. **Caution!** You will be at a disadvantage if you attempt to complete all coursework on a smartphone or tablet. It may not be possible to submit the required files.

Be prepared to take pictures with your phone, iPad, laptop, etc then either upload them as a JPG/HEIC or combine multiple pages into a single PDF using an app such as CamScanner or Acrobat.

Blackboard doesn't always function properly in the Safari browser and the app doesn't have all the functionality that you'll find using a laptop, desktop, etc.

If you need to borrow a device, please visit [SBU's Laptop Loan Program](#).

#### Technical Assistance:

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

- Phone: 631-632-9800 M-F 9:00-5:00 (device support, Wi-Fi, software, hardware, logins)
- Submit a help request ticket: <https://it.stonybrook.edu/services/itsm>
- Email [blackboard@stonybrook.edu](mailto:blackboard@stonybrook.edu)

### Part 5: Course Learning Objectives

Upon completion of the course, students will be able to:

1. Compare/contrast evaluating a function and finding the limit of that function at a specific value of  $x$ .
2. Identify how to simplify different types of functions so that limit can be taken.
3. Compute the derivative of polynomials, exponentials, logarithmic functions, trigonometric functions and inverse trigonometric functions as well as their combinations (products, compositions, etc).
4. Recognize the derivative as rate of change and examine how it's used to analyze data to increase productivity and profitability in a business.
5. Compute antiderivatives/integrals both as a Riemann sum and as an area under a curve.
6. Apply the Fundamental Theorem of Calculus where appropriate.
7. Integrate using the substitution rule.
8. Use integration to solve common issues in business.

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QPS Learning Objectives:

1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables, or schematics.
2. Represent mathematical information symbolically, visually, numerically, and verbally.
3. Employ quantitative methods such as algebra, geometry, calculus, or statistics to solve problems.
4. Estimate and check mathematical results for reasonableness.

### **Attendance Policy**

You are expected to attend every recitation plus report for examinations and submit major graded coursework as scheduled. If you are unable to attend class(es), report for any exams or complete major graded coursework as scheduled due to extenuating circumstances, you must contact me as soon as possible. You may be requested to provide documentation to support your absence and/or may be referred to the Student Support Team for assistance. Students will be provided reasonable accommodations for missed exams, assignments or projects due to significant illness, tragedy or other personal emergencies. Please note, all students must follow Stony Brook, local, state and Centers for Disease Control and Prevention (CDC) guidelines to reduce the risk of transmission of COVID. For questions or more information [click here](#).

## **Part 6: 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](mailto:sasc@stonybrook.edu). They will determine with you what accommodations are necessary and appropriate. All information and documentation is 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**

You must pursue your academic goals honestly, honorably and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Looking for solutions using a browser during the exam is wrong as well. *In doing these things, you risk losing scholarships, financial aid and the ability to graduate with honors.*

Note: when it appears that collaboration between students has occurred, **both** students will be reported.



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Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary.

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](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 University 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:**

If you need to drop or withdraw from the course, it is your responsibility to be aware of the tuition liability deadlines listed on the registrar's [Academic Calendar](#). Before making the decision to drop/withdraw you may want to [contact me or] refer to the University's policies:

- [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. You should also read the University's policies that apply to you:

[Undergraduate Bulletin](#)

[Graduate Bulletin](#)

#### **Course Materials and Copyright Statement:**

Course material accessed from Blackboard, Zoom, Echo 360, VoiceThread, etc. 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.