School of Mathematical and Statistical Sciences
Arizona State University

MAT 266 – Calculus for Engineers II

Class info	Class info
Instructor	INPUT
E-mail	INPUT
SLN (section Number)	INPUT
Time/Day	MWF/TTH at INPUT
Location	INPUT
Office	INPUT
Office Hours	INPUT

- ASU Test reviews: https://math.asu.edu/mat266
- ASU Lecture Videos: https://mathcast.la.asu.edu:446/course_details/MAT266

Email

- When e-mailing me, include your full name, our class code (MAT 266), and our 5-digit section number found on MyASU (Section XXXXX).
- You MUST send all emails from your official ASU email account (not yahoo, gmail, etc – these go to spam).
- When I send Canvas announcements, they will go to your @asu.edu account. **You need to check this account regularly.**

Catalog Description: Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, Taylor series.

Prerequisite: MAT 265 or MAT 270 (Calculus I) with a grade C or better.

Homework Program: Edfinity

Tentative Lectures and Tests Schedule: See in another file in Canvas.

Admin Drop

In order to keep your seat in class, you must complete by the first deadline:

- at least 12 problems of HW 5.5
- at least 7 problems of HW 6.1

You need to keep up with the pace in the first weeks to be successful in this course.

Admin Drop will NOT result in a W grade.

Course Overview

The purpose of the course is to gain a working understanding of methods of integration, applications of calculus, elements of analytic geometry, improper integrals, and series, to include Taylor Series. All the standard methods of techniques of integration are covered. Applications of calculus include general methods where the goal is for the student to divide a quantity into small pieces, estimate with Riemann sums and recognize the limit as an integral. Taylor Series and Taylor Polynomials are covered. Parametric and polar curves are introduced, and methods of calculus are applied to them.

Learning Outcomes

At the completion of this course, students will be able to:

1. Evaluate an integral using the substitution method, integration by parts, trigonometric substitution, or partial fractions.
2. Use tables to match the form of a given integral to a form given on the table to evaluate the integral.
3. Approximate the definite integral using the Midpoint, Trapezoidal or the Simpson's Rule.
4. Find an improper integral where either the definite integral is extended to cover the case where the interval is infinite or where the function has an infinite discontinuity on [a, b].
5. Determine the area of a region enclosed by given curves.
6. Determine the volume of the solids of revolution obtained by rotating a region about a line using washer, disc, or shell method.
7. Determine the arc length of a curve.
8. Solve applied problems involving work, including the work to stretch a spring and the work to empty a tank of liquid.
9. Determine if a sequence converges or diverges and find the limit.
10. Determine if a series converges or diverges using geometric series or tests.
11. Find a radius and interval of convergence for a power series.
12. Perform differentiation and integration on known power series to create new power series.
13. Find a power series representation and the interval of convergence for a given function.
14. Find either a Taylor Series or Maclaurin Series for a given function.
15. Convert between Cartesian and parametric form and sketch a curve defined parametrically.
16. Determine the tangent line at a point on a curve defined parametrically.
17. Find the area below a parametric curve and the arc length along a curve.
18. Convert between Cartesian and polar form and sketch a curve defined in polar coordinates.
19. Find the area made by a polar curve.

Course Information

Textbook (NOT required): Essential Calculus, Early Transcendentals, 2nd Edition, by James Stewart (Cengage).

Edfinity (required): Homework program

Office Hours: By appointment, for seeking advice, and for individual questions/concerns.

Attendance Policy: Attendance is expected. Your instructor reserves the right to take attendance and to incorporate your attendance as part of your overall grade. For classes that meet two days a week, the maximum number of absences is four. For classes that meet three days a week, the maximum number of absences is six. Students who exceed the number of allowed absences might receive a grade of EN.

Canvas and Course Access: Your ASU courses can be accessed by both my.asu.edu and myasucourses.asu.edu; bookmark both in the event that one site is down. This brings you into the Canvas shell for the course. This is where you will go often throughout the semester.

Canvas Technical support: For technical support, use the Help icon in the black global navigation menu in your Canvas course or visit https://tech.asu.edu/services/ec online. Support is available to assist you 24/7. To monitor the status of campus networks and services, visit the System Health Portal at http://syshealth.asu.edu/ . To contact the help desk, call toll-free at 1-855-278-5080

Grade Allocations

50% Tests

15% Homework

10% Quizzes

25% Final Exam

Letter Grades

A+ = [97,100]

A = [93,97)

A- = [90,93)

B+ = [87,90)

B = [83,87)

B- = [80,83)

C+ = [77,80)

C = [70,77)

D = [60,70)

E = [0,60)

Online Homework

Weekly homework assignments will be submitted online through Edfinity. There are around 23 homework assignments, with their due dates indicated. No late assignments will be accepted.

- Write your own notes for each homework problem. You will use it later to prepare for exams. It also helps you to learn how to structure your mathematical thinking in written form.
- Murphy's Law: something always happens on the evening of the due date. Do not postpone – try to be at least 24 hours ahead of schedule.
- Do not ask for an extension if you started working on your HW only 48 hours before the deadlines.

- Work ahead and give yourself extra time to review/study before the exam.
- Cramming is a totally ineffective study technique for mathematics and will eventually guarantee failure in class.

Homework will be a *VERY* important part of your learning. You cannot expect to solve all assigned problems easily. Some problems will require more time and effort. Even if you are unable to solve the entire problem, any time spent on trying is not wasted. Try to emphasize understanding rather than memorization when you are working on the problems. Although the homework is assigned online, you still need to be able to explain all of your steps on your homework solutions. Instructors reserve the right to ask you questions regarding your homework to check your knowledge.

Expect to spend at least 6-10 hrs weekly on homework.

Generative AI

Use of ChatGPT and other generative AIs on assignments, quizzes or exams is NOT permitted.

IMPORTANT! Please do NOT use AI or any other tools to solve HW for you.

If the instructor has reason to suspect a violation of the Academic Integrity Policy, the student may be required to meet with the instructor via Zoom. During this meeting, the instructor may ask the student to explain their work and answer questions related to any submitted ***homework*** *assignment or* ***exam****. Failure to participate in such a meeting may result in further action in accordance with college policy.*

Edfinity (required): Integrated in Canvas

Students can right click the assignment from the Edfinity section and Open it in a New Tab from the context menu.

Edfinity Enrollment Instructions

Edfinity offers a 2-week period, during which you may drop the course and receive a full refund.

Use the latest version of Google Chrome or Firefox on a Windows or Mac computer, as other browsers (such as Safari) may cause issues when accessing Edfinity through Canvas.

Log into your Canvas course. Then, click the Edfinity link in the Course Navigation Menu on the left-hand side of Canvas. This will automatically sign you into Edfinity. The first time you launch Edfinity, you will be prompted to either pay $46 using a debit or credit card, or enter an access code if you purchased one through the bookstore.

Important: Do not sign up directly on edfinity.com—access Edfinity only through Canvas.

If you're purchasing through the bookstore due to financial aid or a scholarship, you can use the following direct link: https://www.bkstr.com/arizonastatestore/product/edfinity-with-office-hours-610030-1 Note: The bookstore price is always higher.

EdDiscussion - Virtual Classroom (Forum, integrated in Canvas)

See Edfinity as a Virtual Classroom specifically created for math and science courses. It is a collaborative site in which students are encouraged to post questions and other students are encouraged to help. The instructor and any teaching assistants will also monitor our forum regularly, offering feedback whenever necessary. Prior to posting a question, please check the syllabus, announcements, and existing posts.

Quizzes

Instructors reserve the right to assign quizzes during class meetings, individual or group, for a grade, with no prior notice. The material is usually based on your previous HWs and/or lecture notes. Active participation is expected. Don't be late.

Show your work for full credit! Just an answer is worth almost nothing. We need to see your work, your thoughts, the methods you are using and your explanation.

Grading Rules

No late homework or quiz are accepted. Students may work together on homework, but each individual student is required to write up and turn in their own work.

Exams:

There will be three 50-minute midterm exams and one comprehensive final exam given during the semester. Samples are provided here: https://math.asu.edu/mat266

- **Exam 1:** 5.5, 6.1-6.5
- **Exam 2:** 6.6, 7.1-7.4, 7.6, 8.1-8.2
- **Exam 3:** 8.4-8.7, 9.1, 9.2
- **Final Exam:** Comprehensive (including 9.3, 9.4)

Books, notes or "cheat sheets" of any kind are NOT allowed.

Non CAS graphing calculators are allowed on the exams, but graphing calculators that do symbolic algebra are not allowed on the exams (see below). The instructor has the right to regard any suspicious material in your calculator memory as cheating.

No makes up exams permitted except in the case of extenuating circumstances (such as verified medical emergencies, religious holidays, required military service, etc.). Makeup exams are given at the discretion of the instructor. The instructor must be

notified before the test is given. Call the Math Department Office (480-965-3951) and leave a message or directly notify your instructor.

- For each exam including the final, students are required to bring a picture ID.
- Cell Phones and Electronic Devices: Any student who accesses for any reason a phone or any internet-capable device during an exam will automatically receive a score of zero on the exam. All such devices must be turned off and put away and made inaccessible during the exam.

Final Exam: Check the ASU Final Exam schedule at https://registrar.asu.edu/final-exam-schedule to determine the exact date and time of the final exam. The final exam for this course is a common final, meaning all sections of MAT 266 take the exam simultaneously. The exam may occur at a different time or classroom than usual class meetings. The final exam is comprehensive through section 9.4.

Video Resources

ASU Videos:
https://mathcast.la.asu.edu:446/?_ga=2.116006534.1675969168.1659110568-172190336.1638938650 (ADA compatible)

You are expected to watch pre-recorded corresponding videos before each class. This will help you to feel confident with the material and terminology during the class.

Tutoring

The following sites provide free tutoring to all ASU students:

- Engineering Tutoring Center (https://tutoring.engineering.asu.edu/courses-tutored-times)
- MCC -The Math Community Center (https://math.asu.edu/resources/math-community-center) - ***highly recommended!***
- University Academic Success Program (https://tutoring.asu.edu/student-services/tutoring)
- The Math Tutoring Center (https://math.asu.edu/resources/math-tutoring-center)
- Students can also visit https://tutoring.asu.edu and utilize Tutor Search to select their course and the times they are available to find a specific tutor that can assist them.

Graphing Calculator (not required)

A graphing calculator is NOT required but HIGHLY recommended for this course. If you already have a graphing calculator, you may use it. Examples of highly recommended models are the TI-nspire & TI 83/84 or Casio 9850GB Plus. Calculators that do symbolic

algebra, such as the Casio FX2, Casio 9970Gs,TI-89, TI-92, or TI- nspire CAS cannot be used in class or during an exam.

How to use Graphing Calculator videos: https://math.asu.edu/computing-resources/graphing-calculator-workshop

Additional online tools, highly recommended: Desmos, GeoGebra, WolframAlpha.

Communicating with the Instructor

EMAIL: this is the best way to contact me regarding personal matters. When e-mailing, include the class you are in (e.g. MAT 266, Section #####).

When I send announcements, they will go to your @asu.edu account. You need to check this account regularly. I cannot be responsible for announcements you did not receive because you are using a different account than the one assigned by the university.

You MUST send all emails from your official ASU email account (not yahoo, gmail etc). All E-mail communication must be done from your ASU account. Due to FERPA (Family Educational Rights and Privacy Act), E-mails received from other accounts will not be answered.

ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

All instructor correspondence will be sent to your ASU email account.

Exam Proctoring Statement

Students in face-to-face or online courses taking exams and quizzes at Arizona State University should expect to be proctored. Students can be required to show a valid identification card and expect to be monitored by proctors. ASU's Academic Integrity Policy violation: penalties will range from deducting exam points, assigning a grade of zero to being reported for violation of the academic integrity policy.

Studying for the Class

Students are responsible for assigned material whether or not it is covered in class, and whether or not it is in the text. Working regularly on assigned problems and attending class are essential in order to do well.

While diligent and timely completion of the homework assignments is necessary to master procedural skills, this alone is insufficient to gain conceptual understanding. To

master the concepts, you must review and study your class notes and the textbook thoroughly with the goal of understanding the connections between the concepts.

You must do this continually throughout the semester. You must have learned the definitions and theorems covered in each class session and started the corresponding homework assignments by the time of the next class session. Failure to know the material covered in a previous lecture will result in your inability to follow subsequent lectures, and the difference between where you are in your understanding and where you should be compounded with each lecture.

To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track
- access ASU Student Resources

Academic Status Report: During the semester you may be issued an academic status report from your instructor if your class grade is failing at that time. If you receive such a status report, you must act on it. Status reports are not a real-time running tally of your grades in the class, nor are they updated to reflect grades earned after the report has been issued.

Classroom behavior, etiquette, and academic integrity policies

1. Athletes with travel schedules should meet with the instructor by the end of the first week of classes to discuss any necessary arrangements that need to be made.
2. Absences related to religious observance/practices or university sanctioned events and activities: if you will be absent from class due to a religious observance or practice that are in accordance with ACD 304-04, or from participation in a university sanctioned event/activity in accord with ACD 304-02, it is your responsibility to inform the instructor during the first week of class. Your instructor will work with you on alternative and reasonable arrangements for any time missed.
3. Classroom disturbances, including but not limited to: arriving late, talking in class, using cellular devices, texting, listening to music, eating and drinking are not tolerated. Each student is expected to show respect for every student registered in the course. Turn off any cellular phones, pagers, laptops, tablets and other electronic devices and put them out of sight prior to entering class. The usage of

laptops is prohibited in the classroom. Notes should be taken with pen/pencil on paper. If you wish to use an electronic device for note taking, talk to your instructor.

4. An instructor may withdraw a student from a course when the student's behavior disrupts the educational process under USI 201-10 http://www.asu.edu/aad/manuals/usi/usi201-10.html
5. Students are required to adhere to the ABOR Student Code of Conduct: https://eoss.asu.edu/dos/srr/codeofconduct.
6. The grade of XE: A grade of XE is reserved for "failure due to academic dishonesty." The grade goes on the student's transcript and usually remains there permanently. Examples of academic dishonesty are signing an attendance sheet for another student or asking another student to sign an attendance sheet on your behalf, accessing unauthorized help while taking an exam, and attempting to influence a grade for reasons unrelated to academic achievement. Asking for a higher grade than the one you have earned because you need a higher grade to maintain a scholarship, or to satisfy your own or someone else's expectations constitutes academic dishonesty.

Admin Drop information

A student who has not attended any class and/or didn't do any HW during the first week of classes may be administratively dropped from the course.

However, students should be aware that non-attendance will NOT automatically result in their being dropped from the course. Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week. It is the student's responsibility to be aware of their registration status. If you receive and ADMIN DROP email from your instructor, it is highly recommended contacting your academic advisor ASAP for more details.

Admin Drop will NOT result in a W grade.

Drop and add dates/withdrawals

If you are considering a withdrawal, review the following ASU policies: Withdrawal from Classes, Medical/Compassionate Withdrawal, and a Grade of Incomplete. See more information here: https://registrar.asu.edu/drop-add.

Failing grades (The E, EN and EU grades)

- The E grade is for students who participated in the class but did not earn enough credit to pass or attain the D grade.
- The EN grade is for student who never once participated in the class. At the instructor's discretion, any student who has not attended class during the first week

of classes may be administratively dropped from the course. However, students should be aware that non-attendance would NOT automatically result in being dropped from the course. Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week. It is the student's responsibility to be aware of their registration status.

- The EU grade is for students who participated, but then stopped after a certain point and never resumed. Might result in losing scholarships or financial aid.
- The Y grades: will NOT be available in this course

Final Exam Make-up Policy

The final exam schedule listed in the Schedule of Classes will be strictly followed. Except to resolve those situations described below, no changes may be made in this schedule without prior approval of the Dean of the college in which the course is offered. Under this schedule, if a conflict occurs, or a student has more than three exams on one day, the instructors may be consulted about an individual schedule adjustment.

Make-up exams will NOT be given for reasons of a non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans. Exceptions to the schedule and requests for make-up examinations can be granted only by the Department Chair, Associate Department Chair or the Director of First Year Mathematics, and for one of the following reasons:

1. Religious conflict (e.g., the student celebrates the Sabbath on Saturday)

2. The student has more than three exams scheduled on the same day as the math final

3. There is a time conflict between the math final and another final exam

Copyrighted materials

All the content in this course, including lectures, are copyrighted materials. Students may not share outside the class, upload, sell or distribute course content or notes taken during the conduct of the course (see ACD 304-06). Students may not upload to any course shell, discussion board or website used by the course instructor or other course forum, material that is not the student's original work, unless the student first complies with all applicable copyright laws. The instructor reserves the right to delete materials on the grounds of suspected copyright infringement (see ACD 304-10).

Any recording of class sessions is authorized only for the use of students enrolled in this course during their enrollment in this course. Records and excerpts of recordings may not be distributed to others. Any (parts of) exams, assignment, reports, or solutions to

these, from current or previous semester, posted to any website not affiliated with ASU will result in academic integrity disciplinary actions against the students posting them and the students using them.

Grade appeals

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the University Policy for Student Appeal Procedures on Grades.

Academic integrity

Students must use their own, original work. Students must refrain from obtaining, uploading or submitting material that is not the student's original work to any course assignment or discussion used in this course or any other course unless the students first comply with all applicable citation guidelines and copyright laws. Faculty members reserve the right to delete materials on the grounds of suspected plagiarism and copyright infringement and impose sanctions as listed below.

Plagiarism of any kind will not be tolerated. Students must take exams independently without assistance from other students. Students may not submit papers written by persons other than themselves. Students must submit original work for this course and may not submit papers previously submitted to (an) other class (es).

Academic dishonesty includes any act of academic deceit, including but not limited to possessing, reviewing, buying, selling, obtaining, posting on a site accessible to others, reviewing materials from a site accessible to others, or using, without appropriate authorization, any materials intended to be used for an academic evaluation.

Academic honesty is expected of all students in any materials intended to be used for an academic evaluation, including, but not limited to: all examinations, papers, presentations, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, grade penalties, course failure (E grade), course failure due to academic dishonesty (XE grade), loss of registration privileges, disqualification and dismissal. For more information, see http://provost.asu.edu/academic-integrity

Student conduct and appropriate behavior

Additionally, required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, Computer, Internet, and Electronic Communications policy, SSM 104–02 policy against threatening behavior, per the Student Services Manual, “Handling Disruptive, Threatening, or Violent Individuals on Campus”, and

outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior.

Netiquette (appropriate online behavior) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion posts may be deleted by the instructor. If you deem content shared by an instructor or student offensive, bring it to the attention of the instructor or, alternatively, to the unit chair or director.
The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

Prohibition against discrimination, harassment, and retaliation (Title VII and IX)

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status.

Title VII of the Civil Rights Act of 1964 is a federal law that provides that no person be discriminated against based on certain specified characteristics: sex, race, color, national origin and religion, age, disability, veteran status, sexual orientation, gender identity, and genetic information. Inappropriate conduct need not rise to the level of a violation of federal or state law to constitute a violation of this policy and to warrant disciplinary action/sanctions.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited.

Reporting Title VII and IX violations

Your instructor is a mandated reporter and therefore obligated to report any information regarding alleged acts of sexual discrimination, including sexual violence and dating violence.

An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/

Violations of these policies may result in disciplinary action, including termination of employees or expulsion of students. Students are encouraged to report harassment to instructors and the Dean of Students Office.

ASU Counseling Services, https://eoss.asu.edu/counseling, is available if you wish to discuss any concerns confidentially and privately.

Course evaluation

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available.

Statement on inclusion

Arizona State University is deeply committed to positioning itself as one of the great new universities by seeking to build excellence, enhance access and have an impact on our community, state, nation and the world. To do that requires our faculty and staff to reflect the intellectual, ethnic and cultural diversity of our nation and world so that our students learn from the broadest perspectives, and we engage in the advancement of knowledge with the most inclusive understanding possible of the issues we are addressing through our scholarly activities. We recognize that race and gender historically have been markers of diversity in institutions of higher education. However, at ASU, we believe that diversity includes additional categories such as socioeconomic background, religion, sexual orientation, gender identity, age, disability, veteran status, nationality and intellectual perspective.

Land acknowledgement

ASU acknowledges the twenty-two Native Nations that have inhabited this land for centuries. Arizona State University's four campuses are located in the Salt River Valley on ancestral territories of Indigenous peoples, including the Akimel O'odham (Pima) and Pee Posh (Maricopa) native communities. We acknowledge the sovereignty of these nations and seek to foster an environment of success and possibility for Native American students and patrons.

Mental health

Students may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These emotional health concerns or stressful events may diminish academic performance and/or reduce the ability to participate in daily activities.

ASU Counseling Services provides counseling and crisis services for students who are experiencing a mental health concern. **Any student may call or walk-in** to any ASU counseling center for a same day or future appointment to discuss any personal concern.

- ASU's dedicated crisis line is available 24/7 for crisis consultation by calling 480-921-1006.
- New telehealth counseling system MySSP provides "Open Call and Open Chat" allows students to talk to counselors immediately, 24/7 and 365 days a year.
- Students can also schedule continued counseling through MySSP. **Counseling is available in 50 languages and services are available anywhere in the world.**

Accessibility statement

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act as amended (ADAAA) of 2008, professional disability specialists and support staff at the Student Accessibility and Inclusive Learning Services (SAILS) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to SAILS by going to https://eoss.asu.edu/accessibility, calling (480) 965-1234 or emailing Student.Accessibility@asu.edu .

Student Privacy

Family Educational Rights and Privacy Act (FERPA): The federal Family Educational Rights and Privacy Act (also called FERPA or the Buckley Amendment) affords students certain privacy rights regarding their education records. Those rights are summarized below. For more detailed information about FERPA, consult SSM 107-01: Release of Student Information [1] or contact University Registrar Services [2]. See https://registrar.asu.edu/policies/ferpa for details about your rights including: The Right

to Inspect, The Right to Amend, The Right to Consent, and The Right to File a Complaint.

Computer requirements

This course requires a computer with Internet access and the following:

- Web browsers (Chrome, Mozilla Firefox, or Safari)
- Adobe Acrobat Reader (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office or Google Drive (Microsoft 365 and Google Drive are free for all currently-enrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

Note: A smartphone, iPad, Chromebook, etc. may not be sufficient for completing your work in ASU courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, virtual labs, quizzes and exams

General Studies Gold Syllabus Statements: Mathematics

This course fulfills the ASU Mathematics General Studies requirement. Students completing a Mathematics course will be able to:

1. Demonstrate an understanding of mathematical relationships from multiple perspectives, such as functions from graphical, numerical, and analytic points of view.

2. Apply mathematical skills in the solution of real-life problems.

Note about Changes to the Syllabus

This syllabus is tentative and should not be considered definitive. The instructor reserves the right to modify in any way, at any time (including the dates of the tests and grade distribution). The instructor is responsible for notifying students of any changes to the syllabus through Canvas announcements or ASU email.

Topics covered:

- 5.5 Substitution,
- 6.1 Integration by Parts,
- 6.2 Trig. Integrals and Substitutions,
- 6.3 Partial Fractions,
- 6.4 Integration Using Tables & CAS,
- 6.5 Numerical Integration,
- 6.6 Improper Integrals,
- 7.1 Area Between Curves,
- 7.2 Volumes: Disk, Washer/Ring method,
- 7.3 Volumes: Shell Methods,
- 7.4 Arc Length,
- 7.6 Applications to Physics and Engineering (Work),
- 8.1 Sequences,
- 8.2 Series,
- 8.4 Convergence Tests,
- 8.5 Convergence of Power Series,
- 8.6 Representing Functions as Power Series,
- 8.7 MacLaurin Series and Taylor Series,
- 9.1 Parametric Curves,
- 9.2 Calculus with Parametric Curves,
- 9.3 Polar Curves,
- 9.4 Polar Calculus.

MAT 266 Tentative Schedule
Fall 2026 - MWF

Week Of	**Section**	**Concepts/Comments**
Aug 20	5.1-5.4	Intro; Review of the Definite and Indefinite Integral
Aug 24	5.5, 6.1	Substitution, Integration by Parts **ADMIN DROP**
Aug 31	6.2, 6.3	Trig. Integrals and Substitutions, Partial Fractions
Sep 07	6.4 , 6.5	*Labor Day (9/7)*, Integration Using Tables & CAS, Numerical Integration
Sep 14	6.5 (cont), 6.6	Numerical Integration, Improper Integrals, *Test 1 Review*
Sep 21	6.6 (cont), 7.1	**Test 1** (9/21), Improper Integrals (cont), Area Between Curves
Sep 28	7.2, 7.3	Volumes (Disk, Washer, and Shell Methods)
Oct 05	7.4, 7.6	Arc Length, Applications to Physics and Engineering (Work)
Oct 12	8.1, 8.2	*Fall Break (10/12-10/13)* Sequences, Series
Oct 19	8.2, 8.4	Series(cont.), *Test 2 Review*, Convergence Tests
Oct 26	8.4 (cont), 8.5	**Test 2** (10/26), Convergence Tests (cont), Convergence of Power Series
Nov 02	8.6, 8.7	*Course Withdrawal Deadline(11/4)* Rep. Funs. as Power Series, MacLaurin Series
Nov 09	8.7, 9.1	*Veterans Day (11/11)* Taylor Series, Parametric Curves
Nov 16	9.1 (cont), 9.2	Parametric Curves(cont.), Calculus with Parametric Curves, *Test 3 Review*
Nov 23	9.3	*Thanksgiving* (11/26-11/27) **Test 3** (11/23), Polar Curves
Nov 30	9.3, 9.4	Polar Curves (cont.), Polar Calculus, *Final Exam Review*
Final Week	No classes	**The Final Exam - Tuesday, 12/8 from 7:10-9:00 pm (Location: TBA)**

ADD THESE TESTS DATES TO YOUR CALENDARS!

Test	*Covering through*	*Date*
1	5.5, 6.1-6.5	9/21
2	6.6, 7.1-7.4, 7.6, 8.1-8.2	10/26
3	8.4-8.7, 9.1, 9.2	11/23
Final	Comprehensive, including 9.3, 9.4	12/8