MAC 2312: Calculus with Analytic Geometry II
4 Credit Hours
Summer C 2023

Instructor:	Recep Celebi	Jacob Kowalczyk
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Office Hours:	Please see Canvas	Please see Canvas
Class Location:	CHE 0316	AND 21
Class Time:	MTRF, first 65 minutes of Period 2 (9:30-10:35)	Period 4 (12:30-1:35)

Prerequisites	MAC 2311 with a minimum grade of C or AP/IB/AICE credit for MAC 2311.
Course Description	MAC 2312 is the second semester in the three-semester sequence MAC 2311, MAC 2312, MAC 2313 covering basic calculus. The course begins where MAC2311 left off at integration techniques, followed by some applications of integration. The next part of the course covers infinite sequences and series, culminating with Taylor Series and applications. MAC 2312 concludes with a study of parametric equations and polar coordinates.
General Education Objectives and Learning Outcomes	This course is a mathematics (M) course in the UF General Education Program. Completing this course with a minimum grade of C will satisfy the student's State Core Mathematics requirement of the UF General Education Program. Courses in mathematics provide instruction in computational strategies in fundamental mathematics including at least one of the following: solving equations and inequalities, logic, statistics, algebra, trigonometry, inductive and deductive reasoning. These courses include reasoning in abstract mathematical systems, formulating mathematical models and arguments, using mathematical models to solve problems and applying mathematical concepts effectively to real-world situations.

After successful completion of this course students will have demonstrated competency in the following Student Learning Outcomes (SLOs):

• **Content:** *Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline.* After completing this course students will gain a knowledge of integration, series, and parametric equations.

• **Communication:** *Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.* Throughout this course students will communicate mathematical ideas verbally in their discussion sessions and as well as through writing on discussion quizzes and exams.

• **Critical Thinking:** *Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.* Students will apply their knowledge to solve problems concerning topics that include, but are not limited to, techniques of integration, calculation of volumes of revolution, calculation of work and probabilities concerning continuous random variables, determining the convergence or divergence of infinite series, using power series representations to evaluate functions and integrals, using the calculus of parametric equations to calculate arc length, and graphing and calculating the areas of polar curves.

Required Materials	There are no required textbooks for this course. We will make use of a free online textbook available at Openstx Calculus Volume 2 as well as the online Guided Learning Calculus 2. Also, in this course we will use the online platform Xronos which has been developed at UF and is supported by the Office of the Provost and the College of Liberal Arts and Sciences. Xronos is accessible through the Canvas site. More details will be given in class.
E-Learning Canvas:	E-learning Canvas, a UF course management system, is located at elearning.ufl.edu. Use your Gatorlink username and password to login. All course information including your grade, course homepage, syllabus, lecture outlines, office hours, exam locations, mail tool, discussion forum, free help information, etc. can be accessed from this site.
	You are responsible for verifying that your grades are accurate. **You have one week after a score has been posted to contact your instructor if you believe there has been a recording error. There is no grade dispute at the end of the semester.**
E-mail and Canvas inbox	All communication between student and instructor and between students should be respectful and professional. All official class communications will be sent only to the ufl.edu addresses or to Canvas inbox. Students are responsible for acquiring and checking their email accounts and Canvas inboxes regularly. Please be sure to sign your name to the end of your messages.
Class Meetings	The class meets on MTRF (i.e., every day of the workweek except Wednesdays) for 65 minutes. During class, we will introduce you to new course material and provide examples. In this course, we will be using active learning strategies to facilitate your understanding and engagement with the material. During a portion of most class meetings, you will be working in groups in the classroom on worksheets or problems written by your instructor on the board. Your work will be collected for grading as part of your class participation grade. Therefore, it is in your interest to attend every class to ensure that you have the opportunity to work collaboratively with your peers and receive credit for your work. Through this approach, we hope to foster a supportive and interactive learning environment that will allow you to develop your calculus skills and deepen your understanding of the subject matter.
Exams	Exams are held at 7-8:30PM on dates as follows:
	Midterm 1: Monday, June 12
	Midterm 2: Thursday, July 13
	Midterm 3: Tuesday, August 1
	Final (Cumulative): Friday, August 11
	The midterms will consist of two parts. Part 1 will be multiple choice questions. Part 2 of the midterm exams will consist of free response problems. The cumulative final exam has only multiple choice questions.
	There are no reading days or a final exam week during the summer term. The date of the final exam is the last day of classes of the summer term. Make a note of this now and please inform any interested parties (e.g. your parents) who may be making plans for you around that time (such as purchasing place tickets to fly home, etc.).

Each midterm exam is worth 15% of your final grade while the final exam is worth 25% of your final grade. No exam grades will be dropped. There are no exam retakes.

Online Homework Xronos

In this course we will be using the online platform Xronos which is free of charge and will be explained during class. Online homework assignments will be assigned daily and must be completed by the specified due date. **No assignments can be submitted after the due date**. Online homework assignments are worth a total of 10% of your final grade. There will be a total of two dropped homework grades at the end of the semester.

All assignments will have posted due dates and these due dates will not be extended under any circumstance.

Personal computer issues will NOT be a reason to offer any type of extension. If you have any issues accessing the online homework, please contact your instructor.

Class Participation

Attendance in class is crucial for your learning. The Summer C term is 12 weeks, which is about 3 weeks shorter than fall and spring terms. Therefore, it is important for you to attend each class and learn the new material presented without any delay. Furthermore, your in-class work will be collected and graded. Class participation is worth a total of 10% of your final grade.

In-class Quizzes

There will be weekly in-class quizzes based on the material of the previous week. You can refer to the course schedule for the dates of quizzes and what content will be tested on each quiz. Quizzes make up a total of 10% of your grade. Your two lowest quiz grades will be dropped at the end of the semester.

Make-up Policy

All make-up work must be arranged with your instructor.

- **Exam Conflicts - UF during Term Assembly Exam Policy** (catalog.ufl.edu/ugrad/current/regulations/info/exams.aspx): "During-term examinations are held during regular class times or during assembly exam periods, which are Monday-Friday from 8:20 - 10:10 p.m. (periods E2-E3) for the fall and spring terms and **Monday-Friday from 7:00 - 9:45 p.m. (periods E1-E2) for the summer terms**. If other classes are scheduled during an exam time, instructors must provide make-up class work for students who miss class because of an assembly exam. When two exams conflict, assembly exams (multiple sections and enrollment over 300) take precedence over non-assembly exams (single sections and/or enrollment under 300). If two assembly exams conflict, the course with the higher number will take priority. Likewise, if two non-assembly exams conflict, the higher number will again take priority. Instructors giving make-up exams will make the necessary adjustments. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. A reasonable amount of time to make up a during-term exam is before the end of the semester in which the student is enrolled in the class."
If MAC 2312 is the lower course number, students must inform the instructor at least ONE WEEK in advance of the exam date so that appropriate accommodations can be made. Otherwise it may not be possible to reschedule.

- **Make-up Exams** If you are participating in a UF sponsored event or religious observance, you may make up an exam only if you make arrangements with your instructor at least ONE WEEK PRIOR to the event. You must present documentation of a UF sponsored event.
If illness or other extenuating circumstances cause you to miss an exam, contact your instructor (no later than 24 hours after the exam) by email. Then, as soon as possible after you return to campus, provide the appropriate documentation to the instructor. You will be allowed to sign up to take a makeup exam at the end of the semester.

- **Make-up Xronos HW**: There are no make-ups.

- **Make-up class participation points**: There are no make-ups.

- **Make-up quizzes**: Missed quizzes can be made up if appropriate documentation is provided. If you miss a quiz, then you should contact your instructor as soon as possible to arrange a make-up quiz. Arrangements must be made within one week of the scheduled quiz, otherwise the quiz grade becomes a 0.

Incomplete　Students who are currently passing a course but are unable to complete the course because of illness or emergency may be granted an incomplete grade of I which will allow the student to complete the course within the first two weeks of the following semester. See the policy on http://www.math.ufl.edu/fac/incompletes.html. If you meet the criteria, you must contact your instructor before finals week to be considered for an I. An I only allows you to make up your incomplete work, not redo your work.

Grading　Xronos Homework: 10%

In-class Quizzes: 10%

Class Participation: 10%

3 Midterms (%15 each): 45%

Final Exam: 25%

Your final grade will be rounded to the nearest hundredth and a letter grade will be given using the following grading scale:

Grading Scale

90.00-100 A	87.00-89.99 A-	84.00-86.99 B+	80.00-83.99 B
77.00-79.99 B-	74.00-76.99 C+	67.00-73.99 C	64.00-66.99 C-*
60.00-63.99 D+	57.00-59.99 D	54.00-56.99 D-	0-53.99 E

****Note** A grade of C- DOES NOT give Gordon Rule or General Education credit!

For those take the S-U option: 67.00-100 S　0.00-66.99 U

Approval of the S-U option must be obtained from your instructor. The deadline for filing an application with the Registrar and further restrictions on the S-U option are given in the Undergraduate Catalog.

For a complete explanation of current policies for assigning grade points, refer to the UF undergraduate catalog:

catalog.ufl.edu/ugrad/regulations/info/grades.aspx

NOTE: We will not review disputed points at the end of the semester. All grade concerns must be settled within one week of the return of the paper.

Extra Credit Each midterm exam has 105 points on it but is taken out of 100 points. The final exam has 110 points on it but is taken out of 100 points. These are your only opportunities to earn extra credit this semester. No other extra credit will be offered.

Free Help In addition to attending instructors' office hours, the following aids are available:

- The Math Help Center in Little 215 is open for drop-in assistance with homework Monday through Friday from 9:30 to 4:00. It is staffed by mathematics graduate students and undergraduate assistants. Please note that this space is not designed for intense one-on-one tutoring, but rather as a resource for quick questions and explanations. You should not expect the staff to help you if you have not at least begun your homework and have specific questions. Moreover, they absolutely will not assist you with quizzes or any other such work.

- Academic Resources at the University of Florida provides a variety of services such as tutoring. Tutors will be glad to provide guidance on specific problems after you have attempted them on your own. You may want to attend different hours to find tutors with whom you feel most comfortable. You can also request free one-on-one tutoring. Check it out here for their hours and location.

  The Academic Resources also offers a more structured tutoring program for MAC 2312, called **supplemental instruction**. A tutor, assigned specifically to MAC 2312, provides weekly help sessions. More details will be provided in lecture.
  In addition, the Academic Resources hold reviews on the evenings before each exam. They also provide videos of review and sample test problems. Check the webpage, Academic Resources, for more information. **All students are encouraged to use the teaching center**.

- Private Tutors: If after availing yourself of these aids, you feel you need more help, you may obtain a list of qualified tutors for hire at www.math.ufl.edu. Seach "tutors".

Calculators Calculators are **NOT** permitted on exams and quizzes. Please avoid using a calculator on homework as it will not help you prepare for the exams.

Cell Phones Cell phones must be silenced (not on vibrate) before coming to class. Use (defined as having one physically in your hand) of a cell phone during an exam or quiz will be considered contact with another person and will be viewed as a form of academic dishonesty because I cannot be assured in such a circumstance that you have not taken a picture of the exam/quiz or sent a text message to someone. As a result, **using a cell phone during an exam or quiz for any reason will result in an automatic grade of zero and possible disciplinary action.** Wait until after you have left the room and are finished with the test/quiz to use it.

Students with Learning Disabilities Students requesting class and exam accommodations must first register with the Dean of Students Office Disability Resource Center (DRC), www.dso.ufl.edu/drc/. That office will provide a documentation letter via email to the instructor. This must be done as early as possible in the semester, **at least one week before the first exam**, so there is adequate time to make proper accommodations.

COVID Policy In response to COVID-19, the following recommendations are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- If you are not vaccinated, get vaccinated. Vaccines are readily available and have been demonstrated to be safe and effective against the COVID-19 virus. Visit one.uf for screening / testing and vaccination opportunities.

- If you are sick, stay home. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated.

- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work.

Diversity and Inclusion The Mathematics Department is committed to diversity and inclusion of all students. We acknowledge, respect, and value the diverse nature, background and perspective of students and believe that it furthers academic achievements. It is our intent to present materials and activities that are respectful of diversity: race, color, creed, gender, gender identity, sexual orientation, age, religious status, national origin, ethnicity, disability, socioeconomic status, and any other distinguishing qualities.

Academic Honesty Guidelines All students are required to abide by the Academic Honesty Guidelines which have been accepted by the University. The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust, and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XIV of the Student Code of Conduct. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).

The Mathematics Department expects you to follow the Student Honor Code. We are bound by university policy to report any instance of suspected cheating to the proper authorities. You may find the Student Honor Code and read more about student rights and responsibilities concerning academic honesty at the link www.dso.ufl.edu/sccr/.

In-Class Recording Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Evaluations Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Important Summer C 2023 Academic Dates and Deadlines

Classes Begin	Monday, May 15
Drop/Add	Monday, May 15 - Tuesday, May 16
Withdrawal deadline (full refund)	Tuesday, May 16
Withdrawal deadline (25% refund)	Friday, June 2
S/U Grade Option	Friday, June 2
Midterm 1	Monday, June 12
Midterm 2	Thursday, July 13
Midterm 3	Tuesday, August 1
Drop deadline (no refund)	Friday, August 4
Classes end	Friday, August 11
Final Exam	Friday, August 11

Holidays (no classes)

Memorial Day	Monday, May 29
Juneteenth	Monday, June 19
Summer Break	Saturday, June 24 - Sunday, July 2
Independence Day	Tuesday, July 4

Note: Information in this syllabus is subject to change. Any changes will be clearly announced in class or through e-mail.

Tentative Schedule

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	May 15 Introduction and "L0"	May 16 L1 - Integration by Parts 1	May 17	May 18 L2 - Integration by Parts 2	May 19 L3 - Trigonometric Integrals 1
Due					
2	May 22 L4 - Trigonometric Integrals 2	May 23 L5 - Trigonometric Substitution 1	May 24	May 25 L6 -Trigonometric Substitution 2	May 26 L7 - Partial Fractions 1
Due	Xronos Tutorial		Xronos 1		Quiz 1 (L1-4)
3	May 29 **Memorial Day - No Class**	May 30 L8 - Partial Fractions 2	May 31	June 1 L9 - Improper Integrals	June 2 L10 - Techniques of Integration
Due		Xronos 2		Xronos 3	Quiz 2 (L5-8)
4	June 5 L11 - Areas and Volume	June 6 L12 - Disk and Washer Method	June 7	June 8 L13 - Shell Method	June 9 L14 - Probability
Due	Xronos 4			Xronos 5 Quiz 3 (L9-11)	Xronos 6 Quiz 3 (L12-13)
5	June 12 Exam 1 Review	June 13 L15 - Work	June 14	June 15 L16 - Sequences	June 16 L17 - Series
Due	**Exam 1 (L1-L13)**	Xronos 7		Xronos 8	Xronos 9
6	June 19 **Juneteenth - No Class**	June 20 L18 - Summing Series	June 21	June 22 L19 - Integral Test	June 23 L20 - Direct Comparison
Due		Xronos 10 Quiz 5 (L12-15)		Xronos 11	
	June 26 Summer Break - No classes	June 27 Summer Break - No classes	June 28 Summer Break - No classes	June 29 Summer Break - No classes	June 30 Summer Break - No classes

Week	Monday	Tuesday	Wednesday	Thursday	Friday
7	July 3 L21 - Limit Comparison	July 4 **Independence Day - No Class**	July 5	July 6 L22 - Alternating Series	July 7 L23 - Root and Ratio Tests
Due	Xronos 12 Quiz 6 (L16-18)		Xronos 13		Xronos 14 Quiz 7 (L19-21)
8	July 10 L24 - Convergence Tests Summary	July 11 Lecture 25 - Power Series	July 12	July 13 Exam 2 Review	July 14 L26 - Power Series Representations 1
Due			Xronos 15	**Exam 2 (L14-24)**	Xronos 16
9	July 17 L27 - Power Series Representations 2	July 18 L28 - Taylor Series 1	July 19	July 20 L29 - Taylor Series 2	July 21 L30 - Taylor Series 3
Due	Xronos 17 Quiz 8 (L22-24)	Xronos 18		Xronos 19	Quiz 9 (L25-27)
10	July 24 L31 - Power Series Summary	July 25 L32 - Arc Length	July 26	July 27 Lecture 33 - Parametric Equations	July 28 Lecture 34 - Calculus of Parametric Equations
Due		Xronos 20		Xronos 21	Quiz 10 (L28-31)
11	July 31 Lecture 35 - Polar Coordinates	August 1 Exam 3 Review	August 2	August 3 L36 - Graphing Polar Curves	August 4 L37 - Calculus of Polar Curves
Due	Xronos 22	**Exam 3 (L25-32)**	Xronos 23		Quiz 11 (L33-35)
12	August 7 L38 - Polar Area	August 8 Final Exam Review 1	August 9	August 10 Final Exam Review 2	August 11 No Class
Due	Xronos 24, 25	Xronos 26 Quiz 12 (L36-38)	Xronos 27	Xronos 28	**FINAL EXAM (L1-38)**