

# MAC 2312: Calculus II

## Flipped Sections 23E0, 23E2

### Fall 2018

#### CONTACT INFORMATION:

##### COURSE COORDINATOR

**Name:** KL Chui

**Office Location:** LIT 376

**Office Hours:** MWF 4

**Email:** [chui@ufl.edu](mailto:chui@ufl.edu)

##### TEACHING ASSISTANT

Robert Monahan

LIT 487

M2,M4,T5

[monahanrs@ufl.edu](mailto:monahanrs@ufl.edu)

**Text:** There are no required text books for this course. For anyone who wish to study from a text book, we suggest an online open source textbook found at <http://bit.ly/2vK7UTB>. Calculus Early Transcendental by Stewart or Rogawski are also great reference books, any edition is good.

**Lecture Shell:** You may purchase a printed packet from Target Copy on 1412 W. University Ave. (Not the Target Store). (ask for MAC2312 **Online notes**). You may also print it off from Canvas.

**Course Management System:** CANVAS, [lss.at.ufl.edu](https://lss.at.ufl.edu)

**Homework:** See 3.1 and 3.2.

**UF Free Tutoring Service:** [www.teachingcenter.ufl.edu](http://www.teachingcenter.ufl.edu)

## 2. COURSE DESCRIPTION

MAC 2312 is the 2<sup>nd</sup> semester in the three-semester sequence MAC 2311, MAC 2312, MAC 2313 covering the basic calculus. The course begins where MAC2311 left off at the integration techniques. This is followed by a study of infinite sequences and series, calculus of parametrized curves and closed with applications of definite integrals.

This is a Flipped class, the basic idea is to move away from using class time for lecturing, and to instead provide that information in video form so students can watch it **ahead** of the time. This format of teaching is to promote active learning, students are taking the responsibility and in charge of their own learning. If you are a self motivated active learner with good time management, then this flipped class is a great fit for you.

### 2.1 PREREQUISITES

MAC2312 assumes that you have essential precalculus skills (both Algebra and Trigonometry) and calculus I skills necessary to succeed in this course. Students should be able to do the arithmetic without a calculator. A **review homework set** is designed to help you refresh your knowledge in these topics. We strongly recommend that students who are having difficulty with these core skills and students who have gap years since the last math class to consider reviewing MAC2311 right away before we get deeper into the course (or take MAC2311 if you have not already done so at UF). You may switch courses at [one.ufl.edu](https://one.ufl.edu) <https://student.ufl.edu/>, during the drop-add period.

### 2.2 COURSE MATERIALS

There are no required textbooks for this course. If you wish to study from, or reference a text book, we suggest an online textbook available at <https://openstax.org/details/calculus-volume-2>. Also, in this course we will use the online ‘guided learning calculus 2’ (GLC2). Its purpose is to give students the extra resource of worked out examples and practice their skills with guided learning. We also use an in-house, UF-made online homework system. The platform is called Xronos and is accessible through the Canvas site. More details will be given in Discussion.

**Lecture Notes Shell:** It is important that you should have a paper copy of the lecture outlines. This will make it easier to take notes and to follow the lecture when watching the videos. Students can obtain the printed outlines from the Target Copy Center (NOT Target Store) across from UF at 1412 W. Univ. Ave. (be sure to ask for the **MAC 2312 Online noteshell**) or print them out from Course Resources in Canvas.

**H-ITT Clicker:** Attendance is required in lecture and in discussion. We want you to engage and challenge yourself in class and ask questions. We have a comfortable class environment and in-class engagement by all is what makes this class awesome! Be ready to participate.

### 2.3 ONLINE RESOURCES

**E-Learning Canvas,** All students are expected to check E-Learning (<https://lss.at.ufl.edu>) on a regular basis. Please ensure that you have access to this service and have the **alerts** turned on from Canvas so that you get timely course updates. Important course information including your grade, course homepage, syllabus, calendar, office hour, test locations, mail tool, free help information...etc. will be housed in Canvas.

**Please note:** Important course information is clearly communicated in this syllabus and the announcements in lecture, discussion and/or Canvas Announcement. Due to the volume of email received, I cannot reply to each request for this well publicized information. If you cannot find your answer in the resources above, ask your TA first, or your instructor at the end of the class. If you must email your instructor, be sure to write down **TA's name, Lecture Period** in the "Subject" to help put your email in the correct context and to receive a reply.

## 2.4 ONE WEEK POLICY

Please be aware of the **One Week Policy**: Once a grade is posted in Canvas, you have one week to **contact your TA** to contest the grade and initiate any grade disputes. Once this one week passes, there are no further disputes. In particular, once the end of the semester nears around the 3<sup>rd</sup> exam time, you *cannot* start disputing, say, grades from the first week or two or the first exam or two.

## 2.5 CALCULATORS

A graphing calculator like Desmos ([www.desmos.com](http://www.desmos.com)), and computer program like Wolframalpha, and the app GeoGebra ([www.geogebra.org](http://www.geogebra.org)) are useful as study and learning tools when used appropriately to help you as you learn the material, **but they are not essential**. Calculus is a collection of concepts and ideas that are not mastered through calculator skills. **No calculators are allowed on quizzes or on exams.**

## 2.6 LECTURES

This class will take a different form from what you may be used to. I will not lecture for the entire period if at all. You will be responsible for watching pre-recorded lectures online at the course Canvas **BEFORE** coming to class. We will spend most of our class time working on problems and exploring the lecture concepts in small groups. This means you cannot participate, or learn anything in class if you have not watched the video and completed the lecture questions prior to the class. Come to class ready to participate.

## 2.7 DISCUSSION SECTIONS

You meet once a week on Tuesday in discussion, this time gives you a valuable opportunity for open discussion of lecture material and assigned problems in a smaller class setting. Attendance in discussion (as well as lecture) is required. Your homework will be turned in and returned to you in Discussion. Check Canvas regularly and consult with your TA if you have any questions about recorded grades. You must **retain all returned papers** in case of any discrepancy with your course grade.

# 3. COURSE ASSIGNMENTS AND GRADING

## 3.1 ONLINE HOMEWORK: There are no makeups nor extensions.

In this flipped course, students view 37 online **lecture videos** and complete 37 **lecture quizzes** in Canvas **BEFORE** coming to class. **L11(on Limits) and L12 (on L'Hospital's Rule) are review of the prerequisite material that are to be watched and completed by the end of week 2.** **Go to Assignments tab in Canvas to access Online Homework: Lecture Questions.**

**LECTURE VIDEOS/LECTURE QUIZ.** The lecture videos, provide the main presentation of course material, are located in EdPuzzle, and can be accessed through Assignments in Canvas. You will need to sign up and join the class first to access EdPuzzle. Go to <https://edpuzzle.com/join/agtarku> to sign up. After the initial sign up, you may access lecture videos in the individual assignment. More details given in the first discussion.

You will need to watch the video and answer the questions in order to move forward in the video. However, answers submitted in the videos will not be counted towards your grades. You must also submit the answers in Canvas to get graded. I suggest for you to open a new tab for the video and have canvas open side-by-side so you may submit answers directly in Canvas as you watch the lecture video. Skipping is allowed when you need to re-watch the video. More details in the first discussion.

To stay current with the course, we recommend watching the video following the schedule posted in the course calendar. **It's possible to get ahead in this class** if you complete each assignment early. **If you have other commitments, adjust your schedule to complete the assignments early rather than late. However, the test dates will not change.**

The two lowest Lecture Quiz scores will be dropped to offset possible credit lost due to technical issues or a missed assignment. These lecture quizzes is worth 10% of the course grade.

Internet sometimes is not reliable, a reason you should not wait till last minute to complete your assignment. **You should complete your work early.** Remember that DueDate is NOT DoDate! If you wait and run into any difficulties, you will be out of luck because there is **no credits nor extension for the work not turned in.**

### **3.2 WRITTEN HOMEWORK: There are no makeups nor extensions.**

We assign 11 written homework sets but only 5 of them are collected in Discussion. Students are asked to practice the problems online and write down the complete solution to turn in to your TA in discussion on the due date. Each set may contain questions from these sources: Quizzes and Practice Exams from GLC2, Questions from Xronos and, Questions from assigned past exams. **Go to Assignments tab in Canvas to access written homework in both Written Homework and Quiz.**

**GLC2:** Why GLC2 and What is GLC2? Quite often, students can suffer from the lack of opportunity and ability to write mathematics and that they do not have enough resources when it comes to worked-out examples. As a result, I created the 'Guided-Learning Calculus 2' (GLC2) in Google in hope to give students a valuable resources to guide you through the course successfully. The flow of the structure of GLC2 is as follows: Students will

- **LEARN** from watching the lecture videos in EdPuzzle and complete the lecture questions,
- **REVIEW** the Notes and Annotated Examples in GLC2, (\*1)
- **PRACTICE** by working out more examples in GLC2. (\*2)
- **TEST** their understanding by taking the Quiz and the Practice Exams in GLC2. (3)

You will find a *brief summary* of each topic covered in the course follow by *examples* with annotated solutions in (\*1) and more *examples* for you to practice in (\*2). After you have worked out all the examples,

you should be ready to test your understanding by taking the *Quiz* and the *Practice Exams in (3)*. Practice Exams cover many topics, you can start as early as you watch the first video in that unit.

Do not skip the important steps in (\*) as this is what helps you to synthesize your understanding first before you do all the homework comfortably. It may be helpful to keep a weekly journal entry with deep thought on *what skills you have learned on each topic, and how to implement what you learned in class to develop solutions to the challenging questions in homework and exams*. Review your entries frequently.

**Xronos:** A UF-made online homework system, is free of charge and will be explained in the first discussion. You **MUST** access Xronos via Canvas every single time you need to access it. Each assignment is represented by tiles in Xronos. There is a 'Try Another One' option. Thus, if a given assignment seems to only have five problems, you actually have access to hundreds of similar problems by clicking this option over and over again. Use this to benefit and practice until you understand the material. Any Xronos technical issues should be directed to [jnowell@ufl.edu](mailto:jnowell@ufl.edu), but cc your TA [monahanrs@ufl.edu](mailto:monahanrs@ufl.edu) and your instructor [chui@ufl.edu](mailto:chui@ufl.edu) in your emails.

**PAST EXAMS:** Many old exams are posted in the course Canvas, including SP 17 and SP 18 for exam reviews. Write down your complete solutions for either of these 2 exams as part of the homework.

**NOTE:** The purpose of homework is to practice problems in order to understand and master the material learned before your exams. Complete them regularly. Complete them after exams is not helpful to your learning nor your grades.

The entire calculus 2 curriculum is available to you from day 1 so you may get ahead by learning the material and working out homework problems before the due dates.

Do not try to complete weekly assignment in one sitting; start early instead of waiting until the due date to avoid missing the deadline. Written Homework contributes 10% to the course grade.

Your TA will give you more information in first discussion.

### 3.3 QUIZ: There are no makeups

There will be six quizzes given in Discussion, we drop one quiz. Each quiz is worth 6 points.

### 3.4 IN-CLASS PARTICIPATION/ATTENDANCE: There are no makeups nor extensions.

Students participate in in-class activities during each lecture period. You must contribute your thoughts/work to the group discussion. Attendance in lecture is required. Students will be using H-ITT clicker in lecture. Student must register their clicker during the 3<sup>rd</sup> through the 4<sup>th</sup> week of the semester. Failure to do so will result in grade penalty. If your clicker is not registered by registration deadline, you will receive a 0 for your H-ITT point for the semester. A weekly clicker grade report will be sent to students' UF email, you will not be able to receive the grade report if your clicker is not registered. It's students' responsibility to verify the scores and fix any clicker issues *immediately*. Up to **10%** of the grades may be earned by *participating* in class using the clicker. There are no makeups, however there will be a small excess of clicker points given over the course of the semester to compensate for occasional excused absence, mechanical failures, forget to bring the clicker,... etc. Following university policy, you may expect lost

points in letter grade for attending fewer than 75% in each of the lecture and discussion classes. In addition, you will lose the opportunity to earn additional points (if available) at the end of the semester.

### 3.5 EXAMS: No Drops

There will be 3 unit exams and 1 cumulative final exam on Monday, December 10, 12:30 – 2:30 PM. The unit exams consist of multiple choice and free response questions and the final consists of multiple choices only. All exams must be taken at the assigned date and time, and the location for your section. See the course calendar for details. Bubble your scantron carefully, there are 3 points penalty for incorrect bubbling, another 3 points penalty if you do not take your exam in the assigned room for your section.

### 3.6 GRADING SCHEME

Your course grade is determined as follows:

Online Homework (37 Lecture Questions in EdPuzzle)	10.0%
Written Homework (5) (5x6=30)	10.0%
Quiz (6, drop 1, 5x6=30)	4.0%
In-Class Activity/Attendance (capped at 30)	10.0%
<u>3 Unit Exams(40/ea)+ 1 Cumulative Final (60)</u>	<u>66.0%</u>
Total:	100.0%

Your course grade will be determined according to the following scale.

A	90% – 100%	C	67% – < 70%
A –	85% – < 90%	C – *	65% – < 67%
B +	80% – < 85%	D+	60% – < 65%
B	77% – < 80%	D	57 % – < 60%
B –	75% – < 77%	D –	50% – < 57%
C +	70% – < 75%	E	< 50%

**\*Note:** A grade of ‘C –’ DOES NOT give University General Education credit!

For those taking the ‘S – U’ option: S [ > 67% ]      U [ < 67% ]

Approval of the ‘S – U’ option must be approved by the registrar’s office. The deadline for filing an ‘S – U’ option can be found in the undergraduate UF Catalog.

**3.7 EXTRA CREDITS:** This is given in Discussion. Your TA will give details during first discussion. All students have the same extra credit opportunities. There is no makeup on these opportunities. No extra opportunities will be granted to any individuals beyond what is available for the entire class.

### 3.8 MAKEUP POLICIES

- There are *no additional makeups nor extensions* on any assignments.
  1. Online Assignment - Lecture Quizzes: 2 drops
  2. In-Class Clicker: It’s an expectation that you attend every class session. No makeups on missed clicker points. There will be 10 excess clicker points to take care of any missed points, excused or not, absent or present.
  3. Written Assignments:

- If you will be absent from discussion, you may turn in assignment early. For approved emergency, contact your TA immediately to make arrangement with valid document)
  - If you are present in discussion but forget to bring your work, make arrangement with your TA before leaving discussion to have it turned in within 24 hours without penalty.
  - For missed assignments without prior arrangement with your TA, everyday an assignment is turned in after the due date a reduction of 50% of the total will be taken.
4. Quiz: *No make up on first missed quiz of any excuses.* Any subsequent missed quiz: you must have documented UF approved excuses for all the absence, signed up by the make up(exam) sign up deadline, completed at least 80% of the course work prior to the quiz, no unexcused absence in discussion. Same rules above apply to last minutes emergency absence except that you need to contact your TA as soon as possible/within 24 hours.
5. Exams:
- If you have class or other exam conflict, please see UF during term assembly exam policy at <https://catalog.ufl.edu/ugrad/current/regulations/info/exam.aspx>. You must sign up with your instructor with valid document *by the end of the third week* to avoid penalty if MAC2312 is the course to give conflict exam. Conflict exam will be offered from 6:50 – 8:10pm on the same night as the regular exam. You will not be permitted to leave the exam room before 8:20pm.
  - If you are participating in a UF sponsored event or religious observance, you may make up an exam **provided you have completed at least 80% of the course work prior to the exam and completed all prior exams and you must sign up by the deadline** (see calendar). Otherwise, it may not be possible to reschedule. At the least, there will be 20% grade penalty.
  - If a serious unforeseen emergency causes you to miss an exam, contact the course coordinator by email immediately. Then as soon as possible after you return to campus, turn in the appropriate documentation and sign up for a makeup. You will be allowed to take a makeup in this case provided you have **completed at least 80% of the course work thus far and have completed all the prior exams**. The same rule here applies plus a 20% penalty if you are turned away from an exam due to late arrival.

### 3.9 INCOMPLETE POLICY

A grade of I (incomplete) will be considered only if you meet the Math Department criteria which is found at <https://math.ufl.edu/departments/incomplete-grades/>. If you meet the criteria you must see the instructor before the beginning of finals week to be considered for an I. A grade of I only allows you to make up your incomplete work. You cannot redo any previously completed work.

## 4. ADVISING AND HELP

**Office Hours:** For all concerns with MAC2312, please talk to your TA who is your first contact in the course. Office hours will be posted and are regular times when we are available to answer questions, discuss grades, advise students on future classes, or help students in any available way. You do **not** need an appointment to visit during office hours. Office hours for calculus 2 covers everyday of the week. If you need math help, you may attend any Calc2 office hours that best fit your schedule.

**Other free resources:** In addition, there are other free resources available to you:



- The Teaching Center Math Lab, located at SE Broward Hall, staffed by trained math and science students offers free tutoring. You may want to attend different hours to find the tutors with whom you feel most comfortable. Go to <https://teachingcenter.ufl.edu/> to find their hours. You can also request free one-on-one tutoring.
- The open source text book <http://bit.ly/wvK7UTB>.
- And last but not least, GLC2, the Guided Learning has summaries on each topic and lots worked out examples to guide you through the course.
- **Campus Helping Resources:** Resources are available on campus for students experiencing crises or personal problems or lacking clear career or academic goals that interfere with their general well-being and their academic performance. Both the Counseling Center and Student Mental Health Services provide confidential counseling services at no cost for currently enrolled students.
  - Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.
  - University Counseling Center, 301 Peabody Hall, 392-1575; personal and career counseling: [www.counsel.ufl.edu](http://www.counsel.ufl.edu)
  - Student Mental Health, Student Health Care Center, 392-1171, personal counseling: [www.hsc.ufl.edu/shcc/smhs.htm](http://www.hsc.ufl.edu/shcc/smhs.htm)
    - Alcohol and Substance Abuse Program (ASAP)
    - Center for Sexual Assault / Abuse Recovery & Education (CARE)
    - Eating Disorders Program
    - Suicide Prevention Program

## 5. HONOR CODE

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

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). 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/](http://www.dso.ufl.edu/sccr/).

## 6. STUDENTS WITH DISABILITIES

Students requesting classroom and exam accommodation must first register with the Dean of Students Office Disability Resource Center (DRC) [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/). This must be done as early as possible in the semester so there is adequate time to make proper accommodations.

**FINALLY**, your TA and your instructors understand that this is a challenging class. We want you to be successful! We are here for you, but you are the person who can walk the path to your success. You will need to stay on top of what's going on in class, know the syllabus and the class policy, and take the initiative to reach out when you need help. Do not let questions pile up and fall behind. Stay on top and get help whenever you need it, you can succeed!



