

MAC 2312: Calculus II
Online Version
Spring 2017
Calendar, Syllabus, Grading Scale, etc.

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Text: This course will be participating in the UF All Access program. The e-textbook, Calculus Early Transcendental by Stewart, is included in the required WebAssign access code. You may opt-in to WA access in Canvas for a reduced price of \$62.50 (for a limited time) and pay for it through student's account. Once opt-in, you will be given an access code to access WebAssign.

Lecture Outline: Access the lecture outlines for each lecture in CANVAS. You may print it off from CANVAS or purchase a printed packet from Target Copy on University Ave. (ask for the MAC2312 **online** course notes)

Course Management System: CANVAS, <http://elearning.ufl.edu>

Online WebAssign Homework: www.webassign.net/ufl/login.html

UF Free Tutoring Service: www.teachingcenter.ufl.edu

MAC 2312 -- ANALYTIC GEOMETRY & CALCULUS II

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MAC 2312, Online Course Calendar, Spring 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1			Jan 4 L1	5 L2	6 L3
Week 2	9 L4	10 Syllabus Quiz, LQ 1-3	11 L5	12 L6	13 Review L1-L6
Week 3	16 MLK Day	17 L7	18 L8	19 L9	20 Review L7-9
Week 4, LQ 7-9	23 L11	24 L12	25 L13	26 Review L11-13	27 Review L1-13
Week 5, LQ11-13	30 L14	31 L15	Feb 1 L10	2 Study for exam1	3 Study for exam1
Week 6, LQ10, 14	6 Discussion B-1	7 Exam 1*	8 L16	9 L17	10 Review L14-L17
Week 7, LQ 15-17	13 L18	14 L19	15 L20	16 Review L18-L20	17 Review L14-L20
Week 8, LQ 18-20	20 L21	21 L22	22 L24	23 Review L21-L22	24 Study for exam2
Week 9, LQ 21-22	27 L23	28 Study for exam2	Mar 1 Discussion B-2	2 Exam 2*	3 L25
Week 10	Mar 6 – Mar10 Spring Break				
Week11, LQ23-25	13 L26	14 L27	15 L28	16 Review L24-L26	17 Review L27-L28
Week12, LQ26-28	20 L29	21 L30	22 L31	23 Review L29-L31	24 Review L24-L31
Week13, LQ29-31	27 L32	28 L33	29 L34	30 Review L32-L34	31 Study for exam3
Week14, LQ32-34	Apr 3 L35	4 Study for exam3	5 Discussion B-3	6 Exam 3*	7 L36 Withdraw Deadline
Week15, LQ35	10 L37	11 Review L36-37	12 Review exam1 coverage	13 Review exam2 coverage	14 Review exam3 coverage
Week16, LQ36-37	17 Study for final	18 Discussion B-4	19 *Verify grades In Canvas Study for final	20 Study for final	21 Study for final

- *** Unit Exam Time: 5 – 10PM EST. Cumulative Final Exam: Saturday, April 22, 5 – 10PM EST.**

- You must schedule with ProctorU at least a week in advance for a 120 minutes time block for each unit exam and 150 min for the final exam. (the imbedded extra 30 minutes is more than adequate to cover any possible internet issues)

- **Discussion Board Posting** (in Canvas) due on the dates indicated here at 10PM EST for 1 Bonus point

LQ: Lecture Quiz due on Sunday by 10PM, EST (except for the first set due Tuesday second week)

***Verify and resolve all Canvas grades issues:** 4/19-4/25. Absolutely NO grades discussion after 4/26.

MAC 2312, WebAssign Homework, Spring 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
			Jan 4 L1	5 L2	6 L3
8	9 L4	10 Diag Quiz 7.1P, 7.1C, 7.2P	11 L5	12 L6 7.2C, 7.3P	13
15 7.1M, 7.4P	16	17 L7 7.2M	18 L8	19 L9 7.3C, 7.8P	20
22 7.3M, 7.4aC	23 L11	24 L12 7.4aM, 7.4bC	25 L13	26 7.4bM	27
29 7.4cC, 11.1P	30 L14	31 L15 7.4cM, LimitR	Feb 1 L10	2 7.8C, L'HR	3
5 7.8M, 7.5R	6	7 Exam1R Exam 1*	8 L16	9 L17 11.1C	10
12 11.1M, 11.2aC	13 L18	14 L19 11.2bC, 11.2aM	15 L20	16 11.2bM	17
19 11.3C	20 L21	21 L22 11.4C, 11.3M	22 L24	23 11.4M, 11.5C	24
26 11.5M, 11.6aC 11.6aM	27 L23	28 11.6bc, 11.6bM	Mar 1	2 11.7R Exam2R Exam 2*	3 L25
5	Mar 6 – Mar10 Spring Break				
12 11.8P, 11.8C 11.9aC	13 L26	14 L27 11.8M, 11.9bC	15 L28	16 11.9aM	17
19 11.10aC	20 L29	21 L30 11.9bM	22 L31	23 10.1-4P 11.10aM	24
26 10.1-10.2C 11.10bC	27 L32	28 L33 11.10bM Exam3R-I	29 L34	30 10.1-10.2M 10.3C	31
2 10.3M, 10.4aC	Apr 3 L35	4 10.4aM 10.4bC	5	6 10.4bM Exam3R-II Exam 3*	7 L36 Withdraw Deadline
9 6.2P	10 L37	11 6.2C	12	13 6.2M	14
16 6.3C	17	18 6.3M	19 Final R	20 Reading Day	21 Reading Day

All WA assignments are due 10PM on the dates specified on this calendar.

Exam Review WA assignments are extra credit.

2. INTRODUCTION

2a. COURSE DESCRIPTION and CONTENT. MAC2312, Calculus II, is the 2nd semester in a three semester calculus sequence. The course begins where MAC2311 left off at the integration techniques. This is followed by a study of sequences, series, parametric equations, polar coordinates and closed with applications of definite integrals including volumes of solids and solids of revolution.

A minimum grade of C (not C –) in MAC 2312 satisfies four credits of the University General Education Mathematics requirement.

This is an ONLINE VERSION of MAC2312 – all content is delivered online. Students view 37 online **lecture videos** and complete **lecture questions/quizzes** in the course management system Canvas and complete **online homework** using WebAssign (WA) software. Students are encouraged to **post** questions and answers on the course **Discussion Board** in Canvas. **Three semester unit exams** and a cumulative **final exam** are posted in Canvas and administered through ProctorU.

2b. PREREQUISITES. MAC2312 assumes that you have essential PreCalculus (MAC1147 Algebra and Trigonometry) and Calculus I (MAC2311) skills necessary to succeed in this course. Students should be able to do the work without a calculator. In the last section of this syllabus, students may find a short list of review materials to practice.

A grade of C in UF MAC2311 meets the minimum requirement for the course. We encourage students to review the prerequisite material to gain a strong knowledge in order to succeed in calculus II. A **Diagnostic quiz** in WebAssign is due on the date in the calendar. You should already be competent in working this material. We recommend students who are having difficulty with the review material or the Diagnostic quiz consider first taking MAC2311 (if you have not done so) which is offered as an UF online course. You may switch courses on StudentSelfService, <https://student.ufl.edu/>, during the drop-add period. Students may also use the ALEKS Remedial Program to strengthen pre-calculus skills. For more complete information on ALEKS, check the page isis.ufl.edu/aleksinfo.html.

2c. REQUIRED MATERIALS.

WebAssign (WA): This course will be participating in the UF All Access program. Students will have the option to “opt-in” to the required WebAssign through Canvas once classes begin for a reduced price of \$62.5 for a limited time at the start of the semester. Students who opt-in will pay for these materials through their student account. This access includes the e-textbook, Calculus Early Transcendental by Stewart and the Diagnostic Quiz and the online homework. A print copy of the text is not required. Once opt-in, student will be given an access code to log into WA by

clicking on the WA link on the left in Canvas. Log into WA using your GatorLink credentials and enter the access code when asked.

Lecture Notes Outlines: See 2f.

Computer access and requirements: All assignments should be taken on a computer, not cell phone or tablet, since there may be compatibility issues with CANVAS and WA. Be sure you are using a browser that works. Any WA questions should be directed to the WA helpdesk, and/or your TA. Remember DueDate is NOT DoDate. You should not wait till last minute to complete your online assignment to avoid any last minutes issues. For WA browser recommendations, click here, http://www.webassign.net/manual/student_guide/c_a_system_requirements.htm .

You are responsible for having access to a working computer and for completing your work on time. Complete and submit your work early. If you wait and run into any difficulties to submit your work, you will be out of luck. (see 3e).

Calculators: A graphing calculator or computer program can be useful as a learning tool when used appropriately, but they are not essential. Calculus is a collection of concepts, ideas and process that are not mastered through calculator skills. No calculators are allowed during exams.

2d. ASSIGNMENT CALENDAR. Check the Course Calendar, Course WebAssign Calendar and ‘Assignment Due Dates’ in Syllabus for due dates and plan your schedule accordingly. The light orange color entries are there to help you with your study plans if you need it.

2e. CANVAS. is the hub of the course. It’s where you will access important course information such as the lecture videos, lecture questions, grades, syllabus, Discussion Boards, exam information, etc. It’s run by UF, and you will need your gatorlink ID and password to login. The website address is <https://elearning.ufl.edu>. In addition, there is an Announcement for communication and **Conference for onine (digital) office hours.**

All grades are posted in Canvas (except for the individual WA scores which are accessed in your WA gradebook). **You are responsible for verifying that all grades are accurate. You have one week after a score has been posted to resolve any grade concerns (or as indicated in the CourseCalendar at the end of the semester).** Contact your TA if you believe there has been a grading or recording error. **We will NOT consider any grading disputes at the end of the semester.**

Please note: Important course information is clearly communicated in this syllabus. Assignments and course materials are easily accessible through the CANVAS. If you can not find your answer in the resources above, please use the Discussion Board in CANVAS to post questions and to supply

answers to your fellow classmates. If you have personal questions that can't be shared with the class, then use email.

BE SURE TO TURN ON the ALERTS from Canvas so you get timely course information.

2f. LECTURE VIDEOS. The lecture videos provide the main presentation of course material, and are accessed through Canvas. To stay current with the course, we recommend watching the video weekly 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 commitment, **adjust your schedule to complete the assignments earlier rather than later.** However, **the test dates will not change.** You should watch the lectures and answer the corresponding lecture questions in Lecture Quiz in Canvas before attempting homework.

Lecture Notes outlines: It is important that you have a hard copy of the lecture notes in order to follow the lecture when watching the videos. This will make it easier to take notes and to follow the lecture. Students can obtain the printed Lecture Notes outlines from the Target Copy Center (ask for the MAC2312 **Online** course notes) or print them out from each lecture in Canvas.

Note: The lecture note outlines and other documents posted in Canvas are in PDF format which requires Acrobat Reader on your computer. You may download the latest version through <http://get.adobe.com/reader/>.

2g. SUCCESS: Other than having a strong precalculus and calculus I background, success in MAC 2312 depends largely on your attitude and effort. **Keeping up with the lecture videos** is critical. You may find it beneficial to work daily on the material as opposed to saving it all for one day. It is not effective to watch video and copy notes without following the thought processes involved in the lecture. For that reason, there are **Lecture Quizzes** following each lecture which you will answer in Canvas as part of your course grade. (see 3d)

Be aware that much of the learning of mathematics at the university takes place outside of the classroom. You need to spend time reviewing the concepts of each lecture from the video and the e-book **before** you attempt homework problems. It is also important to look over the e-tbook sections to be covered in the next lecture to become familiar with the vocabulary and main ideas before watching the next video. That way you will be better able to grasp the lecture material. As with most college courses, you should expect to spend a **minimum** of 3 hours working on your own for every credit hour of the class. MAC 2312 is a 4 credit course, which means **at least 12 hours per week** preparing for this course and additional hours spent watching the lecture videos. Keep in mind that the goal is to be able to **apply the techniques of calculus** to problems, not just reproduce the problems you see in the class.

Do you know that it takes roughly 42 lecture hours in colleges vs. roughly 142 lecture hours in high school to complete a calculus course? The fact of the matter is that college course goes 3+ times faster and that you probably won't do well if you don't watch lecture regularly or wait till the week of the exam to start preparing for the exam. Therefore, it is critical that you keep pace with the course material and assignments. Do not fall behind. Use the resources available as you study!

We encourage you to ask questions on the Discussion Board, seek **help** from your teaching assistant (TA) and the instructor, and the Broward Teaching Center, www.teachingcenter.ufl.edu, for live and online tutoring services. Do not let misunderstandings go unanswered.

We encourage students to work together. An important resource to facilitate communication in an online course is the MAC2312 **Discussion Board** in CANVAS. You should check the Discussion Board regularly, posting questions and answers for fellow students. The effort of asking questions and communicating ideas clearly, as well as the practice writing down questions and solutions, are effective tools in helping you better understand calculus concepts. This is YOUR forum, take advantage of it by participating in it.

In studying calculus, you must be careful not to let a tutor, friend or calculator 'think' for you. Be sure that you can work problems completely on your own and able to answer any questions others have posted by the time of a quiz or an exam.

It's our hope that through focused study and practice you will gain a true appreciation for the important concepts of calculus and their application. We want you to succeed in this class! You must be positive and keep up with the course material and take the initiative to **get help in time, before you get too far behind. Students with a positive attitude who are intellectually engaged in learning the material will get the most from the course.**

2h. STUDENTS WITH DISABILITIES. UF welcome students with disabilities into the UF programs. Students requesting class and exam accommodations must first register with the Dean of Students Office Disability Resource Center (DRC), www.dso.ufl.edu/drc/, (352-392-8565) and then they should approach the TA as soon as possible to arrange for extension on exams and quizzes.

2i. ACADEMIC HONESTY. Remember that you committed yourself to academic honesty when you registered at the University of Florida by agreeing to the Honor Pledge below:

The Honor Pledge

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

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 mathematics department expects you to follow the Student Honor Code. We are bound by university policy to report an 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 addition, we remind you that **lecture videos are the property of the University/faculty member and may not be distributed/shared without prior permission from the coordinator and may not be used for any commercial purpose.** Students found to be in violation may be subject to discipline under the Student Conduce Code.

3. GRADING

3a. COURSE GRADE. Your course grade is determined as follows:

WA Assignments sets (>50 possible points)	50 pts
Lecture Questions sets	40 pts
3 Semester Exams (70pts/ea)	210 pts
<u>Final Exam</u>	<u>100 pts</u>
Total:	400 pts

In addition, there are extra credits opportunities including Diagnostic Quiz, Syllabus Quiz, the Exam Reviews in WA, the Discussion Board Q/A on each Exam Review. Their due dates are listed in the two course calendars and in Assignment Due Dates file under Syllabus in Canvas.

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

A	360 – 400	C	280 – 293
A –	348– 359	C – *	268 – 279
B +	334 – 347	D+	254 – 267
B	320 – 333	D	240 – 253
B –	308 – 319	D –	228 – 239
C +	294 – 307	E	< 227

There will be no additional curve in this course, and extra assignments for individual students to improve a grade are NOT possible.

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

For those taking the S – U option: S[280 to 400 points] U[0 to 279]

Approval of the S – U option must be obtained from your instructor and approved by the registrar’s office. The deadline for filing an application with the Registrar and further information about the S – U option are found in the undergraduate UF Catalog.

3b. INCOMPLETE GRADES. A student **who has completed a major portion of the course with a passing grade** but is unable to complete the final exam or other course requirements due to illness or emergency may be granted an incomplete, indicated by a grade of “I”. This allows the student to complete the course within the first six weeks of the following semester. The student must contact the course instructor before finals week for departmental approval and must provide documentation of the extenuating circumstances preventing him or her from taking the final exam. **The grade of “I” is never used to avoid an undesirable grade, and does not allow a student to redo work already graded or to retake the course.** See the official policy at <http://www.math.ufl.edu/fac/incompletes>.

Missing any exam due to negligence, however, will result in a grade penalty.

3c. GETTING STARTED, SYLLABUS QUIZ(bonus). DIAGNOSTICS QUIZ(bonus).

Log in to Canvas and click on the Start Here page. Watch the Introductory video and then read the syllabus. After you feel comfortable with the course policies, take the **syllabus quiz** posted in Canvas for extra credit. You also earn extra credits from completing the **Diagnostic Quiz** in WA. The syllabus quiz is to make sure you understand what is expected of you in this course and the diagnostic quiz provides a review of the required precalculus and calculus I skills. (see 3h). After completing the introductory part, you are ready to move to the main content: Lecture 1 – Lecture

37. **NOTE:** you must get at least 80% of the syllabus quiz before you may unlock the course. Please contact your TA if miss the deadline, in which case, you will lose the bonus points opportunity, but you still need to take and pass it to unlock the course. **Your TA is your first and main contact of the course.**

3d. VIDEOS AND LECTURE QUESTIONS. MAC2312 is organized into 37 lectures in Canvas, each lecture has an introductory page including the concepts to be covered, things you need to do for this lecture. From there, you may link to the **lecture videos** and a copy of the note outlines for each lecture. Viewing the video is an important aspect of the learning process. There are several **lecture questions** in **Lecture Quiz** to be completed at the end of each lecture. You will earn points by completing lecture questions by the specified due date. You should work these problems after you watch the lectures and then enter your answers directly in Canvas. We encourage you to use the text as well as the videos or the discussion board to help answer these questions. These questions pertain to the concept recently covered. It is best to do them as soon as possible.

Post questions on the course discussion board if you need clarification of a topic. The Broward Teaching Center at UF provides online homework support and is also a valuable resource.

NOTE: We have, since the taping of the lecture video, changed to a different text book where the chapters are arranged slightly differently. You may see some ‘mis-labeled’ lecture sections on the homepage. Go by the ‘topic’ name when this happens to find the appropriate sections in the book.

NOTE: There are minor typos in some of the Lecture videos. It will be pointed out during the semester via email/announcements.

3e. WEBASSIGN HOMEWORK. Online homework administered in WebAssign is planned to review concepts and provide practice of the lecture material. The homework problems are graded by the software and you see your score immediately after submitting your work. You will have limited submissions for each problem, there are aids and a link to the e-text to help you solve questions. Read the Description and Instruction in the first assignment for more details.

NOTE: There are no makeups. You can request an extension on WA homework within 2 days after the deadline and you will have 48 hours to complete it after extension request. The extension must be submitted in WA directly, and you must NOT select to view the answers. However, there will be a 20% grade penalty for those problems completed after the original due date for the assignment.

NOTE: Always read the Description and Instruction displayed in the beginning of each assignment.

While working in WA, you are advised to always click the ‘SAVE’ button to save your answers, this does not reduce the number of submissions allowed, but helps your TA to retrieve your last saved answers in case there are internet troubles or if you forget to submit your answers.

The WebAssign Homework is open book and open note. If you are experiencing a problem with logging in, registration, or WebAssign in general, please contact WebAssign Support. Their contact information is on their homepage. Get the trouble shoot ticket number and email your TA immediately after this.

NOTE: WebAssign Homework and Lecture Questions account for almost 1/4 of your total course score, to reflect their importance in understanding course concepts. Your total WA homework will be capped at 50 points, but the total points available are higher to offset possible credit lost due to technical difficulties.

3f. EXAMS. See 4. TESTING.

3g. EXTRA CREDIT. You may earn additional points beyond the required graded work in the following ways:

1. **SYLLABUS QUIZ** (3 points), **DIAGNOSTIC QUIZ** (2 points). These are to introduce you to the format of the course, and to provide a review of the required precalculus and calculus I skills. They are not timed but due before the deadline specified on the course calendar, you have limited submissions per question.
2. **EXAM REVIEWS** (12 points). Before each of the exams an Exam Review will be open in WA for practice and extra credit. The review will have a flavor of the type of questions you will see on the actual exam. It is not timed, you have limited submissions per question and must be submitted by the due date. See course calendars.
3. **DISCUSSION BOARD** (1x4=4 points). We encourage you to use the Discussion Board regularly to ask and answer questions posted by others about the course material and homework. In addition, you may earn extra credit by posting at least one question and answering at least one question posted by another student for each WA Exam Review. Questions must be appropriate and related to the course material to earn credit. Posting a question without your work of attempting the solution does not give you extra credit. These are due before each exam so you will need to start the EXAM REVIEW early in order to participate.
 - *Please post your questions to the discussion board. Do not use email for problems related to the course homework, lecture quiz, or exam review questions.*
 - *This is your forum, you get most out of it by actively participating in Q/A. When you use the discussion board instead of email, everyone will benefit rather than just you and it is likely that others are experiencing the same problems. If you know the answer to a question posted on the discussion board, please do not hesitate to answer it. The course coordinator and TA will answer questions on the discussion board twice a week.*

3h. ADDITIONAL PRACTICE PROBLEMS. There are also problems listed at the end of each lecture in the note outlines, called ‘Now You Try It’. These were written by the course coordinator and are designed to emphasize the important concepts and practice of the lecture material. Some of them are included in the Lecture Quiz as well. These problems are not graded, but it is strongly encouraged that you work them out. Answers are posted along with the problems in the notes.

4. TESTING.

There are three unit exams and one cumulative final exam. You must register with ProctorU at <http://go.proctoru.com> for each exam at least 1 week prior to the exam date to schedule a 120 (90+extra 30) minutes time block for each unit exam and a 150 (120+30) minutes block for the final. All exams are open from 5 – 10PM EST only.

Make sure you are available to take the exam at the designated date and time.

ProctorU issues or temporary disconnects during exams:

We offer 30 extra minutes on all exams to compensate for disconnect problems, times when the keyboard is disabled by ProctorU, or other technical issues with ProctorU.

Please do not request a retake for any exam unless you have documented evidence that your disconnect or other technical issues exceeded 30 minutes.

If you are uncertain as to the reliability of your internet service provider or internet connection, find a place to take your exam where the connection is reliable or take the conventional course.

We urge you to **connect to Proctor U Help Desk representatives, at least a few days prior to your exam**, <http://www.proctoru.com/testitout> and do a live chat via ‘Connect to a live person’ **to confirm your connect and equipment are all good. It is your responsibility to be sure that you have a reliable internet connection and verify with the proctor for an acceptable location & environment to ensure that it meets proctoring requirements. Go to <http://www.proctoru.com> for more details.**

4a. SEMESTER UNIT EXAMS. Each Unit Exam will be given in Canvas and scored on a scale of 0 to 70 points, consisting only multiple choice questions. The exam is locked after the test. You may request a private conference through Canvas with your TA to review your exam. More details will be provided after each exam.

4b. FINAL EXAM. A mandatory, cumulative final exam in Canvas will be given on the date shown in the course calendar. The exam consists of multiple choice questions only and graded on a scale of 0 to 100 points.

Note: You may NOT use a calculator or any other study aid for exams. Be sure to read the ProctorU handout thoroughly to understand the exam procedures before you start a test.

4c. MAKEUP POLICIES. All makeup work must be pre-approved by the course TA, and work must be completed by Wednesday, April 19. (except for the final).

1. **Make up – Exams:** To be eligible for a make up, you must have signed up with the TA at least two weeks prior to the exam date (unless last minute emergency) with valid documented UF approved excuses **and** have completed at least 80% of the course assignments so far. Please consult with your TA.

If illness or other last minute extenuating circumstances cause you to miss an exam, you must contact your TA within 24 hours of the exam with a valid documentation for approval to reschedule the exam with ProctorU. The eligibility requirement stated above still applies.

2. **Make up – WebAssign Homework: No make-ups.** (see 3e). You must start your homework and quizzes in plenty of time to allow for any computer, internet and all other issues.
3. **Other make ups:** There are **no** make ups on the Diagnostic Quiz, Syllabus Quiz, Discussion Board Posts, Lecture Quiz and Exam Reviews.

We do not accept any late excuse documentation. You must immediately report to your TA any problems with any assignments after you have requested the appropriate help and get the confirmation number of such requests when appropriate.

The make up exam for an unit exam, if approved, is on Wednesday, April 19, administered by ProctorU. You are responsible to schedule it at least 1 week prior with ProctorU.

5. ABOUT THE ONLINE WEBASSIGN ASSIGNMENTS:

For some of the students, this could be the first time seeing the challenging concepts in this course. To put these complex topics into perspectives so that students can conceptually break down the topics slowly and overtime become quicker with, the entire course is organized around a list of Learning Objectives that demonstrates mastery of various topics in the course. These objectives fall into three categories:

Prelecture (P) objectives in which you will watch video, read from the textbook and work exercises to review algebraic skills, gain exposure to the new material and to prepare yourself for the sections to come.

Concept Check (CC) objectives that address basic terminology and computations based directly on theorems, definitions and examples of the section.

More Practice (MC) objectives address higher-level tasks such as synthesis of multiple techniques and creative work through application.

The due dates for the Lecture videos questions and WA homework are mapped out carefully so students do not forget one topic as you are learning another and helps reinforce previous knowledge.

WA assignments are spread out 3 times a week with smaller sets arranged by the topics to help students to stay more on track and to understand the focus of each topic, rather than as one larger weekly assignment. This is to encourage students to focus on in-depth mastery of each topic rather than to merely meet a weekly deadline.

6. FORMULAS YOU ARE EXPECTED TO KNOW.

This course assumes that you have a sound precalculus and calculus 1 background. The following is a summary of some important concepts used in solving calculus problems. The textbook provides a more complete review of these essential topics.

COMPLETING THE SQUARE $x^2 + ax + b = (x + \frac{a}{2})^2 + (b - (\frac{a}{2})^2)$

LAW OF EXPONENTS $a^{n+m} = a^n a^m$ $a^{n-m} = \frac{a^n}{a^m}$ $(a^m)^n = a^{mn}$

PROPERTIES OF logarithms $\log_b |xy| = \log_b |x| + \log_b |y|$

$$\log_b \left| \frac{x}{y} \right| = \log_b |x| - \log_b |y|$$

$$\log_b |a^m| = m \log_b |a|, \quad \log_b |x| = \frac{\ln |x|}{\ln b}$$

PARABOLA $y = f(x) = ax^2 + bx + c$ CIRCLES $(x - a)^2 + (y - b)^2 = r^2$

Vertex $x = -\frac{b}{2a}, y = f(-\frac{b}{2a})$ Center $(a, b), \text{ radius} = r$

Derivatives

$$\frac{d}{dx}(\sin x) = \frac{d}{dx}(\csc x) = \frac{d}{dx}(\cos x) = \frac{d}{dx}(\sec x) =$$

$$\frac{d}{dx}(\tan x) = \frac{d}{dx}(\cot x) = \frac{d}{dx}(\arctan x) =$$

$$\frac{d}{dx}(a^x) =$$

$$\frac{d}{dx}(e^x) =$$

$$\frac{d}{dx}(\log_a x) =$$

$$\frac{d}{dx}(\ln x) =$$

Integrals

$$\int \frac{1}{x} dx =$$

$$\int e^x dx =$$

$$\int a^x dx =$$

$$\int \sin x dx =$$

$$\int \cos x dx =$$

$$\int \tan x dx =$$

$$\int \cot x dx =$$

$$\int \sec^2 x dx =$$

$$\int \csc^2 x dx =$$

$$\int \sec x \tan x dx =$$

$$\int \cot x \csc x dx =$$

$$\int \tan^2 x dx =$$

$$\int \cot^2 x dx =$$

$$\int \frac{1}{a^2 + x^2} dx =$$

Trig Identities

$$\sin^2 x + \cos^2 x = 1$$

$$\tan^2 x + 1 = \sec^2 x$$

$$1 + \cot^2 x = \csc^2 x$$

$$\sin^2 x =$$

$$\sin 2x =$$

$$\cos^2 x =$$

$$\cos 2x =$$

Know values of $\sin x$, $\cos x$, $\tan x$ at $x = 0, \frac{\pi}{6}, \frac{\pi}{4}, \frac{\pi}{3}, \frac{\pi}{2}$; $\arctan(a)$ at $a=0, 1, \sqrt{3}, 1/\sqrt{3}$.

(know the values of the other trig. functions at these angles and know the values of all trig functions at complementary and supplementary angles of the angles above)

Chain Rules

$$(f(g(x)))' = f'(g(x))g'(x)$$

Derivative of an Inverse

$$\text{If } g = f^{-1}, \text{ then } g'(x) =$$