Short Calculus

Course Information
Course Name: MAT 016B Section 004
Course Webpage: www.math.ucdavis.edu/~mtsuruga/teaching/W Q2017_16B.html
Time/Location: Lectures: MWF 10–11AM KLEIBER 003
Instructor: Mimi Tsuruga
Contact: mtsuruga@math.ucdavis.edu
Office Hours: W 2–4PM Wellman 115
Review Sessions:
T Jan 24 3-4PM Olson 167
T Feb 28 3-4PM Olson 167
T Mar 14 3-4PM Olson 167
R Mar 16 2-4PM Wellman 115

TA information:
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<th>Calc Room Hours</th>
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<td><a href="mailto:aesenda@math.ucdavis.edu">aesenda@math.ucdavis.edu</a></td>
<td>T 1-4; F 1-2</td>
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<tr>
<td>Bohan Zhou</td>
<td><a href="mailto:bhzhouzhou@math.ucdavis.edu">bhzhouzhou@math.ucdavis.edu</a></td>
<td>M 3-4,5-7; T 2-3; W 2-4,5-7</td>
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Course Description
Integration; calculus for trigonometric, exponential, and logarithmic functions; applications. See UC Davis online catalog archive and department’s course syllabus for more information.

Prerequisites
MAT 016A: C- or better, or MAT 017A: C- or better, or MAT 021A: C- or better, or MAT 021AH: C- or better. Not open for credit to students who have completed courses 17C, 21B, or 21C. Only 2 units of credit to students who have completed course 17B.

Class Policies

➢ READ THIS SYLLABUS! This syllabus contains all essential information for successful completion of this course. Students enrolled in this course are presumed to have read and agreed to all aspects of the course design and policies as set forth in this syllabus.

➢ Regularly check the course webpage for updated information and announcements. The syllabus may also change to reflect updated information.
See the attached Important Dates calendar for a course outline and reading schedule. The e-Text sections (whose numbers are written on the bottom left corner of a calendar date box) are expected to have been read before the indicated date.

There will be no make-up exams. There will be no partial credit on homework problem sets. There will be no curve.

Students are encouraged and expected to work together on homework problems, study together, and use any resource they can get their hands on including, but not limited to, mathematical software (see Software) and free online videos or courses (such as Khan Academy; see Software). HOWEVER, all exams will be closed-book; discussion, sharing of solutions, and use of electronic devices (such as calculators, smart phones, tablets, or laptops) are strictly prohibited during exams.

The instructor will be available to answer questions and workout problems after lectures or during weekly office hours. The TAs can answer questions during their Calculus Room hours. Also learn about tutoring and advising services provided by various UC Davis programs (see Help & Suggestions).

The TAs for this course will not hold office hours in their offices. The TAs will be available for help and consultation during their Calculus Room hours.

Attendance will not be recorded, except for exams. However, students who attend lectures will have a strong advantage as the lectures will almost always include hints for approaching exams.

When emailing the instructor or TAs be sure to include your Student ID Number!

Grading Policy

Homework

The homework problem sets are online and can be found on WebAssign (see Software) or PDF versions can be found on the course webpage or Canvas. There are 10 online homework problem sets labeled HW1–HW10. All exams in this course will be based on problems found in these Homework Problem Sets.

Complete any three homework problem sets in full to receive 1 extra credit point towards the course grade. Complete any five homework problem sets in full to receive 2 extra credit points towards the course grade. Complete any eight homework problem sets in full to receive 4 extra credit points towards the course grade.

Each problem set must be COMPLETED IN FULL. The problems sets get NO PARTIAL CREDIT. Students working on the online problems must make sure the problem set is indicated as 100% completed before the due date to receive any credit.

The problems are typically individualized for each student. However students may—and are strongly encouraged—to work together.

Homework Problem Sets via WebAssign are ALL accessible from Day 1. They may be completed any time BEFORE 11:59PM on the indicated due date. They are due on Wednesday nights. See Important Dates calendar for exact due dates.
Students who opt-out of Inclusive Access may hand in paper versions of the homework problem sets. A PDF version of all homework problem sets are available on the course webpage and Canvas from Day 1. They must be submitted no later than Wednesday evening on the indicated due date in the Math Dept Homework Box for this course (on the first floor of the Mathematical Sciences Building). (Note that the MSB building is only open during regular business hours.) Each submitted Homework Problem Set must be a printed version of the PDF found online, printed on white US letter-size paper and stapled. Clearly write the student ID number on the top right corner of every page. Students can receive a free paper copy of the PDF if they contact the instructor before the Monday of the week of the due date. As with the online homework problem sets, the paper versions must also be completed IN FULL. Partial credit will not be given.

Exams

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<th>Exams</th>
<th>Weight</th>
<th>Date</th>
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<tr>
<td>Quizzes</td>
<td>10%</td>
<td>(see below)</td>
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<tr>
<td>Midterm 1</td>
<td>20%</td>
<td>Friday, January 27, 10–11 AM</td>
<td>KLEIBER 003</td>
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<tr>
<td>Midterm 2</td>
<td>30%</td>
<td>Friday, February 24, 10–11 AM</td>
<td>KLEIBER 003</td>
</tr>
<tr>
<td>Final</td>
<td>40%</td>
<td>Tuesday, March 21, 10:30 AM</td>
<td>YOUNG 198</td>
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All solutions must show work! If the shown work is correct and the final solution is wrong, the problem will be marked as correct. If the shown work is wrong and the final solution is correct, the problem will be marked as incorrect.

Students are expected to work alone. The use of calculators, notes, or books are not permitted. See UC Davis Code of Academic Conduct.

Exams are based on online homework. That is, the exam problems will be some variation on some of the online homework problems assigned from the previous weeks. (Hint: Take a look at nearby problems in the e-Text.)

Practice Tests are available on the course webpage and Canvas.

Exam grades will be posted on Canvas when they become available.

There will be four in-class quizzes. There will each have four problems per quiz. Each problem is scored with a 0, 1, or 2, for a total of 8 possible points per quiz. The lowest quiz grade will be dropped.

The quizzes will be given at the start of lecture (10AM) on the indicated dates. Students will be given approximately 10–15 minutes to complete the quizzes.

Quiz 1 Wednesday, January 18 redo by: Friday, January 27
Quiz 2 Wednesday, February 8 redo by: Friday, February 17
Quiz 3 Wednesday, February 15 redo by: Friday, February 24
Quiz 4 Wednesday, March 8 redo by: Friday, March 17

Students will have an opportunity to redo the quiz at home and resubmit. They must be handed in by the start of lecture (10AM) on the corresponding “redo by” date.

The midterms are full-period in-class exams. The final exam has been scheduled by the registrar.
The content of the midterms and final will be cumulative. The problems will be similar to problems found in all previous homework problem sets and exams.

The midterms and final will be graded out of 100 points. Some problems may receive partial credit when applicable.

Students must bring a photo ID (such as a UC Davis Student ID card or driver’s license) to the midterms and final. IDs will be checked at random during the exams.

Graded quizzes can be collected from the following Monday until that Wednesday afternoon. Graded midterms can be collected from two Mondays after the exam until Friday afternoon that week. They can be found in a cardboard box outside of MSB 2149. (Note that the MSB building is only open during regular business hours.) Any exams that were not collected during that time will be discarded.

Department policy dictates that all completed mathematics final exams are the property of the Department. Students may look over their final exams, but may not keep them.

Letter Grades

Use the formula below to compute the numerical course grade. Non-zero decimals are rounded up to the nearest integer (only at the very end).

\[
\begin{align*}
Q & : \text{Sum of top three quiz scores} \\
M1 & : \text{Midterm 1 grade} \\
M2 & : \text{Midterm 2 grade} \\
F & : \text{Final grade} \\
HW & : 1 \text{ if } 3-4 \text{ sets completed IN FULL} \\
& \quad 2 \text{ if } 5-7 \text{ sets completed IN FULL} \\
& \quad 4 \text{ if } 8 \text{ or more sets completed IN FULL} \\
\end{align*}
\]

\[
\frac{Q}{24} \times 10 + \frac{M1}{100} \times 20 + \frac{M2}{100} \times 30 + \frac{F}{100} \times 40 + HW
\]

The letter grade for the course will be determined using the following standard table.

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A curve will only be applied under extreme circumstances and only when requested to do so directly by the department. (Note: This instructor has never applied a curve before.) See General Catalog for university grade policies.
Software

WebAssign & e-Text

WebAssign

Course Key: ucdavis 0867 6634

In an effort to reduce overall student costs, this course is participating in the UC Davis Inclusive Access program. All enrolled and waitlisted students have automatic access to the e-Text and an interactive study platform for the required course material at a discounted rate negotiated for the campus.

All students will receive an email before the start of the quarter with instructions to register for WebAssign, an interactive learning platform embedded with the e-text for the course, Ron Larson’s Calculus: An Applied Approach, Ninth Edition. Students who did not receive such an email should contact inclusiveaccess@ucdavis.edu as soon as possible.

Students will have free access for 10 class days (until January 23), after which the access fee of $82.35 will be billed to their MYBILL account. Students may opt-out of the digital access during the 10-day period, prior to billing. If they opt out, their online access will be turned off and they will pay nothing. Students who drop the course before the opt out deadline are automatically opted out and will not be charged. Those who drop the course after the first 10 days will have 5 days to request a refund with documentation of the drop.

The access fee covers the entire MAT 16 series. Students who registered for access are recognized in all consecutive levels of the series. They will not billed again and do not need to opt out.

- Students in sections of 16B and 16C who already had access in 16A are covered for the entire series and will not be billed again.
- Students who opted out of access in 16A will remain opted out and will need to opt in if homework is being assigned in WebAssign for their current course.
- Each student will see their individual access status on the Inclusive Access website.

IMPORTANT NOTICE

Students are NOT required to purchase digital access for this course! Students who decide to opt-out of Inclusive Access can still receive credit for doing
Khan Academy

A free Khan Academy class on integral calculus has been created for this class. Note that this coaching class does not cover all the topics in this course.
Instructions:

• Sign up using your UCDavis google account at khanacademy.org.
• Visit khanacademy.org/coaches (the “Coaches” tab in your profile).
• In the “Add a coach” field, enter the class code. Class code: SEY5FT
• You’re set. Now click Home to start learning.

Students are NOT required to use the Khan Academy class for this course.

Math Department Accounts

Students enrolled in this course can create temporary accounts in the mathematics department to use the computers in the computer lab at MSB 2118. Students with accounts will have free access to some mathematical software (such as Maple and Matlab) to be used only in this lab.

Set up your accounts at https://www.math.ucdavis.edu/courses/class-accounts/. Students are NOT required to set up an account for this course.

Wolfram Mathematica

A special discount is being offered for UC Davis students. Students may purchase a student license for the newly released Wolfram Mathematica v.11 Student Desktop edition for a discounted price of $99 (normally $140).

And if you place your order before Oct 1, there will be an additional discount of 15% off of the original price, making it $78!

Instructions:

• Visit https://store.wolfram.com/view/app/mathematica/student.
• Choose a platform.
• Add the product to the Cart.
• Upload a proof of your Student Enrollment (e.g., registration receipt, class schedule)
• Choose an optional Personal License Service, if you want one.
• Enter the promotion code PD2126 right before checkout.

Students are not required to purchase this software for this course. This license is a perpetual license. The students will be able to use the license as long as they are pursuing a degree.
SageMath

Visit https://cloud.sagemath.com to try SageMath online for free. Sage is easy to learn and may be used to find many of the solutions to the homework problems. Also visit this page to find a calculus tutorial with examples relevant to this course.

Students are NOT required to use Sage in this course.

Help & Suggestions

➤ For every hour spent in class, expect to spend (at least!) 2 hours studying.

➤ Contrary to popular belief, mathematics is rarely—if ever—worked out in isolation. Ask questions and talk to many different people.

➤ There is a free webpage CalcChat which requires no sign-up where students can find detailed solutions to odd-numbered problems found in the e-Text for this course. The webpage also has a live chat feature for students who require extra help.

➤ Student Academic Success Center, located on the second floor of Dutton Hall, offers many services for students in mathematics courses. These include workshops for the Math 16 and some classes in the Math 21 series, drop-in tutoring, self-paced programs, an exam file, and classes coordinated with the Math 16 and 21 series for students with special needs.

➤ A list of tutors available for hire is maintained by the Student Services Office on the department’s website. Some student organizations, such as the Math Café, provide tutoring services. Students also have academic advising services available through the First Resort, the Mathematics Academic Peer Advisor, and academic counselors in their Deans’ offices.
## Important Dates

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