Cleveland State University — Department of Mathematics

Syllabus for MTH181 — Calculus I

Spring 2019: January 14 – May 10

1 Course Information

- **Credit Hours**: 4. This course counts toward the Mathematics/QL general education requirement.

- **Prerequisites**: Grade of C or better in MTH 168 (Precalculus II) or suitable placement-test score.

- **Text**: *Calculus Early Transcendentals, second edition* by Jon Rogawski. Single variable and electronic versions of the text are available.

- **Section Information**:

<table>
<thead>
<tr>
<th>Section</th>
<th>Instructor</th>
<th>Meeting Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>§1 SPT Session Lopez</td>
<td>MTWF 10:15 AM – 11:05 AM&lt;br&gt;MWF 11:20 AM – 12:10 PM</td>
<td>BH401&lt;br&gt;BH401</td>
</tr>
<tr>
<td>2*</td>
<td>§2 SPT Session Feller</td>
<td>MTWF 1:30 PM – 2:20 PM&lt;br&gt;MWF 2:35 PM – 3:25 PM</td>
<td>BH328&lt;br&gt;BH328</td>
</tr>
<tr>
<td>3</td>
<td>Rodrigues</td>
<td>MWF 2:35 PM – 3:25 PM</td>
<td>BH307A</td>
</tr>
<tr>
<td>4</td>
<td>Aloi</td>
<td>MWF 9:10 AM – 10:00 AM&lt;br&gt;Tu 8:55 AM – 9:45 AM</td>
<td>BH307A&lt;br&gt;BH307A</td>
</tr>
<tr>
<td>5</td>
<td>Lopez</td>
<td>MTWF 8:05 AM – 9:55 AM</td>
<td>BH406</td>
</tr>
<tr>
<td>51</td>
<td>Munther</td>
<td>TuTh 4:00 PM – 5:50 PM</td>
<td>BH332</td>
</tr>
</tbody>
</table>

* Tuesday sessions of SPT sections are regular class sessions.
2 Learning Outcomes

The successful MTH 181 student should understand and be able to apply concepts related to limits, continuity, derivatives and basic integrals. The student should be able to work with these concepts numerically, graphically and analytically. For this course we assume that students are proficient in Algebra and Trigonometry. Your instructor may review some topics, but students are expected to seek help by themselves if they feel the need to review Algebra and Trig.

A day-by-day schedule, specifying the topics to be covered in the course, is attached to this syllabus.

3 Learning Resources

- **Blackboard Learn (BBLearn):** This course makes intensive use of the CSU online course management system: [https://www.csuohio.edu/center-for-elearning/blackboard-login](https://www.csuohio.edu/center-for-elearning/blackboard-login).

This link directs you to the center for elearning’s “Blackboard 2018” page, from which you can click to the actual log-in page.

Visit our MTH181 BBLearn site frequently for course information, supplemental material, useful links, and other resources.

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• **Math Learning Center**: Free tutoring is available at the Math Learning Center, BH230. Tutors are highly competent graduate and undergraduate students with solid knowledge of calculus, and experience in various aspects of learning and teaching. Learning Center Hours are Monday - Thursday, 9am-8pm, Friday 9am - 4pm and Saturday 10am-2pm (beginning week 3).

• **Tutoring and Academic Success Center (TASC)**: Provides general academic help, and runs useful workshops about time management, test taking skills, study skills, etc. Located at BH233, phone 687-2012. TASC does not provide tutoring for Calculus.

• **Stem Peer Teachers**: Some sections are Stem Peer Teacher (SPT) supported. These sections provide SPT sessions, generally preceding the regular class, which act like recitation or lab sessions and which are intended to help further your understanding of the calculus concepts. More information about SPT-supported sections is given below.

• **WeBWorK Review Sets**: This course includes use of the WeBWorK on-line homework system as a graded component of the course (see below for information and details). In addition to the normal graded sets of homework problems, there are several review sets. They are intended to help you review topics that you may need extra help with, or to practice with and consolidate some of the new ideas of the semester. These WW Review sets will be graded on a “take-home quiz” basis. Your instructor will give further information about this component of the WeBWorK assignments.

• **Recommended Homework Exercises**: A list of these will be posted on BBLearn. These will not be graded, but it is recommended that you work them. Doing so will greatly increase your chances of succeeding in this course. This list of recommended exercises includes many of the problems from the WeBWorK sets, but adds a significant number not included in those sets. These recommended exercises are intended to help you organize and structure your reading and homework outside class. A reasonable goal to set yourself is to work most, if not all, of these recommended exercises over the semester.

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4 Stem Peer Teachers

Some sections of this course are combined with mandatory STEM Peer Teacher (SPT) sessions, which means they are taught by trained undergraduate and graduate students known as STEM Peer Teachers. Each SPT session meets three times per week, immediately preceding the Monday, Wednesday and Friday classes, and in the same room as your regular classes. (Twice per week in the same room, preceding each class, for classes that meet on a two-day per week schedule.) For students enrolled in a Calculus I course with an SPT session, your attendance and participation in the SPT sessions is required and counts toward your grade as described in the attendance section of this syllabus.

The SPT sessions are conducted to help students further your understanding of the calculus concepts. Your SPTs are fellow students that provide support in the regular classes as well as in various aspects of learning during the SPT session preceding the regular class. These interactive sessions include individual, pair and group work, content assessments, enrichment materials and application packets. If you are in an SPT section, more details concerning your SPTs and the SPT sessions will be given by your instructor and SPTs.

5 Course Work and Assessment

5.1 Reading and Homework

You should read our book and work homework exercises on a regular and ongoing basis, keeping up with the day-by-day schedule and with where we are in class. Working homework exercises, in particular, is an important part of understanding and consolidation of the material. The list of Recommended Homework Exercises, mentioned above and posted on BBLearn, gives a guide for exercises to work. A general rule often given is that, to have a good chance of succeeding in a course, you should be spending about three hours on reading and homework for each in-class hour, which amounts to about twelve hours of homework each week for this course.

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5.2 Graded Homework

*Homework accounts for 16% of the overall score.*

This course uses the WeBWorK on-line homework system, accessible through the following link:

[http://webworks2.csuohio.edu/webwork2/CSU_MTH181_Spring19/](http://webworks2.csuohio.edu/webwork2/CSU_MTH181_Spring19/)

Your Username is your CSU Student ID number. Initially, your password is also your CSU Student ID number. *Please be sure to change your password to a non-generic one the first time you log in.* This may be done by clicking the “Password/Email” item off the Main Menu at the upper left of the screen, after you are logged-in. Please bookmark the homework link for easy access. Use **Firefox, Safari** or **Chrome** to access WeBWorK. **Internet Explorer** is not recommended, since it is slower and does not display some problems correctly.

There will be no extensions for homework assignments unless a student has an extended absence from class that can be documented. Please do not wait until the last day to start the homework. Not being able to access the system will not be accepted as a valid excuse for late homework.

Depending on your course section, you may also be required to carefully write up approximately five homework problems per homework assignment.

Each homework set has a different number of problems, but all problems have the same overall weight.

At the end of the course, the total homework score is scaled to a score out of 100 points. You should try to work as many problems as you are able, completing each set as fully as possible. At the end of the course, your total score will be “curved” slightly so that completing about 95% of all problems will earn you a full score of 100 points on this component. In practice, this means that you may leave one or two problems from some sets uncompleted without harming your overall grade.

5.3 Quizzes

*Quizzes account for 15% of the overall score.*

Quizzes are short tests or activities designed to provide an assessment of your understanding of material being currently learned and/or enhance learning. They are also a means of providing ongoing feedback on your progress.

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Your instructor will provide more information about format, dates and content of quizzes. Each quiz is scored out of 10 points, and a running average of your quiz score will be posted on BBLearn. At the end of the semester, your average quiz score will determine your score on this component.

5.4 Tests

Tests account for 44% of the overall score.

There will be four unit tests, which are cumulative in-class tests without notes and books. Each test is graded on a scale of 100 points. Test dates are as follows:

<table>
<thead>
<tr>
<th>Test</th>
<th>Date (§§ 1–5)</th>
<th>Date (§ 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>February 6</td>
<td>February 7</td>
</tr>
<tr>
<td>2</td>
<td>February 27</td>
<td>February 28</td>
</tr>
<tr>
<td>3</td>
<td>March 27</td>
<td>March 28</td>
</tr>
<tr>
<td>4</td>
<td>April 17</td>
<td>April 18</td>
</tr>
</tbody>
</table>

One of the four test scores (the lowest score) is replaced by the final exam score, assuming the score on the final is higher than at least one test score. This applies only to scores obtained by actually taking the test, and not to tests for which there was an unexcused absence. Also, a Test score of zero that results from scholastic dishonesty (see below) may not be replaced by the score on the Final.

Make-up Policy for Tests: Make-ups can be given, at the instructor’s discretion, for missed tests that have a valid reason, such as a medical emergency involving the student or immediate family members.

In all cases, the student must present documentation justifying the absence, and provide contact information for the person providing the documentation. Furthermore, if a student is not able to take a test at the scheduled time, then the student must inform the instructor before the scheduled start of the test. The following reasons will not be accepted as excuses for taking a make-up:

- Travel, unless it is related to a medical emergency.
- Work commitments. If you have a work-related schedule conflict, you must arrange with your employer to receive a dispensation.

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• Medical conditions for which you cannot provide documentation. If you didn’t visit a doctor office or other medical facility, you can obtain a note from the nurse’s office at the university.

• Medical excuses must be from local health service providers.

• Having another test on the same day.

• Not being able to prepare for the test.

Unless an extended absence is justified, make-ups have to be taken within three days of the test date, excluding days the university is closed. If you know in advance that you will be unavailable at a particular date, please contact your instructor as soon as possible. Permission to allow a makeup exam is at the instructor’s discretion and generally will not be permitted more than once and will not be permitted if the reason is not documented.

**Calculator Policy:** Use of a graphing calculator is an integral part of the course. All students are required to have one, and to know how to operate it. The department currently supports the TI-84+. It makes this model available to instructors, and students can expect departmental help in learning to use it. Calculators with equivalent capabilities, such as the TI-83 and TI-84, are also accepted. Use of the calculator is allowed on tests and quizzes, unless otherwise stated in this syllabus or by your instructor.

Calculators with symbolic capacity, such as those listed below are prohibited on exams. Students who own such calculators will be provided with a TI84+ for tests. Use of a cell phone or any other communication device is prohibited during exams. Violation of this policy will result in a score of 0 (zero) in the exam where the violation took place. A second such offense will result in an F in the course.

**Texas Instruments:**

• All model numbers that begin with TI-89 or TI-92

• TI-Nspire CAS

**Hewlett-Packard:**

• HP Prime

• HP 48GII

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• All model numbers that begin with HP 40G, HP 49G, or HP 50G

Casio:
• fx-CP400 (ClassPad 400)
• ClassPad 300
• ClassPad 330
• Algebra fx 2.0
• All model numbers that begin with FX

Handheld, tablet, or laptop computers, including PDAs
Electronic writing pads or pen-input devices
Calculators built into cell phones or any other electronic communication devices

5.5 Final

The final exam accounts for 25% of the overall score.

The final is a comprehensive exam without notes and books, graded on a scale of 100 points. Final Exams are held at the following times and locations:

Sections 1–5 (Common Final): Thursday, May 9,
10:15am – 12:15pm
Location: TBA.

Section 51: Tuesday, May 7, 4:00pm – 6:00pm
Location: Regular Classroom.

Notice that, for Sections 1–5 the final is not held at the regular time and location indicated on the University web site.

Make-ups will not be given to students that do not attend their final at the times and places indicated above. Use of a graphing calculator is allowed in the final, according to the same policy stated for unit tests.

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5.6 Attendance

- To pass this class, you must attend. Attendance is taken in every class meeting.

- If you do not attend class regularly, you will not pass. If you miss eight or more fifty-minute periods you will receive a course grade of “F” (fail). You may miss up to four fifty-minute periods without penalty. Each absence beyond the fourth will reduce your grade in the course by 1/3 a letter grade (for an example, an A will become an A-, an A- will become a B+, etc.). Note that for SPT classes if you miss either the SPT session or the class session or both on a given day, that will count as one absence.

- For students in two-day a week classes, if you miss four or more one hundred-minute periods you will receive a course grade of “F” (fail). You may miss up to two one hundred-minute periods without penalty. Each absence beyond the second will reduce your grade in the course by 2/3 a letter grade (for an example, an A will become a B+, an B+ will become a B-, etc.). Note that for SPT classes if you miss either the SPT session or the class session or both on a given day, that will count as one absence.

- If you leave early you will be marked absent on that day. If you are ten or more minutes late to class you will be counted as tardy. Four accumulated tardies will count as one absence (two tardies for two-day-a-week classes).

- You will not be granted additional absences after you have reached the maximum allowable.

Absences required by religious observance, disability and Title IX accommodations, universityAUTHORIZED activities, and military service are exempt from this policy. In order for these absences to be excused, you must provide advance notice to your instructor, no later than the end of the second week of class. For disability and Title IX accommodations, university-authorized activities, and military service, you must provide your instructor with appropriate documentation.
5.7 Extra Credit Opportunity

*Extra Credit up to a Possible 3% of the overall score.*

For each WW HW set that you complete 50% or more correct, two days before it is due, you will be credited 1 point (e.g. if HW is due Tuesday, 50% or more correct by Sunday is worth 1 point). At the end of the semester, divide your number of points out of the total number of sets (14), and you will get that fraction of 3% added to your total % for the course.

5.8 Grading Scale

A student’s total score is computed according to the following formula:

\[
\text{Total score} = (\text{Final Exam Score}) \times 0.25 \\
\quad + (\text{Average test score}) \times 0.44 \\
\quad + (\text{Homework score}) \times 0.16 \\
\quad + \text{Avge. Quiz score} \times 1.5 \\
\quad + \text{Extra Credit}
\]

*Note:* One test score may be replaced by the final exam score, in the sense explained in Sub-section 5.4.

The total score is then rounded up to the next integer, yielding an overall score of up to 100 percentage points. The letter grade is then determined by this score according to the table:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93%</td>
</tr>
<tr>
<td>A-</td>
<td>90%</td>
</tr>
<tr>
<td>B+</td>
<td>86%</td>
</tr>
<tr>
<td>B</td>
<td>83%</td>
</tr>
<tr>
<td>B-</td>
<td>80%</td>
</tr>
<tr>
<td>C+</td>
<td>75%</td>
</tr>
<tr>
<td>C</td>
<td>70%</td>
</tr>
<tr>
<td>D</td>
<td>60%</td>
</tr>
</tbody>
</table>

A student with an overall score of less than 60% will get an F in the course.

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6 Midterm Grades

Per University policy, each student in this course (as well as any other 100- or 200-level course) will be given a midterm grade. These will be made up and assigned during the eighth week of classes (midterm grades must be submitted no later than 3/11). Midterm grades are advisory only, intended to provide information about how you are progressing. They do not appear on a student’s official transcript. Advisors check these grades and intervene with students as needed.

In this course, midterm grades will be made up based on the scores you have accumulated at that point in the semester. Namely, for Tests 1 and 2, some quizzes, and WW HW sets WW01–WW07. The following formula will be used to make a midterm score for each student, which will then be converted to a midterm letter grade according as the table above.

\[
\text{Midterm score} = (\text{Average of Scores on Tests 1 and 2}) \times 0.69 \\
+ (\% \text{ completed of homeworks WW01–WW07}) \times 0.16 \\
+ \text{current quiz average score (out of 10)} \times 1.5
\]

This formula gives very heavy weight to Tests 1 and 2, which will be spread more evenly over more tests for your actual final grades. Also none of the forgiveness or extra credit formulas are applied here. On the other hand, these grades do reflect the data available, and so are reasonable as guides to how you are progressing.

7 General Policies

7.1 Grade reporting and disputes

All student scores will be posted in Blackboard as course work and tests are done. Students are responsible for checking their own progress, and reporting to the instructor any discrepancies as soon as they are noticed. It is also strongly suggested that you retain all graded work from the course until the end of the semester and after grades are posted. This way if a dispute arises concerning a recorded grade and the actual grade, we have the

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documentation needed to rectify the situation. Additionally, graded works make for excellent study materials for upcoming exams.

7.2 Class Conduct

Class attendance and participation is essential for success in this course. Please come to class prepared, and take an active role in class discussions and activities.

Please bring a graphing calculator to each class. Cell phones should be turned off or placed on vibrate. Text messaging during class is not appropriate and is grounds for removal from class. During computer lab sessions, checking email and surfing the web is inappropriate when the instructor is talking and again grounds for removal from the class. Other serious disruptions are grounds for removal as well.

7.3 Withdrawals

Withdrawing from the course may put you in violation of the federally mandated standards for academic progress (SAP) that you must maintain to be eligible for financial aid. Read the link on the course website for information about the implications of withdrawing from the course for your financial aid or visit Campus 411.

7.4 Scholastic Dishonesty

Cheating and/or plagiarism will not be tolerated. “Cheating” includes copying or receiving help from another student on quizzes, tests or exams, as well as allowing another student to copy from your work. Merely copying another student’s homework, or allowing someone else to do your homework for you, is also considered cheating. If cheating occurs in a quiz or unit test, the student will receive a grade of 0 for that component of the course. If a student cheats a second time during the course, the student will receive an F for the course. If cheating occurs in the final exam, the student will receive a grade of F in the course. Any cheating activity may be reported for further action.

Information regarding the official CSU policy regarding cheating and plagiarism can be found in the CSU Code of Student Conduct at https://www.csuohio.edu/sites/default/files/StudentCodeOfConduct.pdf

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7.5 Exam Etiquette

Cheating is a concern during exams. When we hear complaints about cheating, they usually come from other students in the class who do not appreciate that not everyone is playing by the same rules.

Here are some basic rules for during any test or exam:

1. No entering or leaving during the test once it has begun. You can leave after you are finished, but not until at least 15 minutes have gone by. Plan ahead as there will be no bathroom breaks during a test or final.

2. You cannot start the test more than 15 minutes late.

3. There is no discussion among students during the exam.

4. Calculators cannot be shared during the exam, so make sure you have brought a functioning graphing calculator.

5. No communication devices of any kind may be used during the exam. All cell phones must be stowed during the exam and not in view. This includes Apple watches and similar devices. If an unauthorized electronic device is seen during the exam, it will be considered cheating and the penalties are as outlined above.

6. All work submitted on your exam paper must be your own work.

7. No headphones during the exam.

The above list is not intended to be exhaustive. All students are responsible for behaving ethically and adhering to the Student Code of Conduct.

Remember that the purpose of the exam is to help you learn the material both by doing it and being assessed in how well you are doing it. The feedback should be valuable both to your instructor to help you master it and to you to see what you need to work on. Cheating, of course, defeats all of that.

During the final exam, there will be assigned seating. Seating may be assigned at other times at the instructor’s discretion.

7.6 Disabilities Statement

Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students.

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regardless of their disability. Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services at (216) 687-2015. The Office is located in BH 147. Accommodations need to be requested in advance and will not be granted retroactively.

7.7 Disclaimer

The course coordinator, in consultation with instructors, reserves the right to modify these procedures as the course progresses, and to change the assignment schedule from the outline given. Any changes will be announced in class with adequate advance notice. You are responsible for being aware of any changes discussed in class and/or in the BBLearn course site. This includes exam days, homework due dates and changes in policy.