# MATH 220 AL1 AL2 AL3 FA20: Calculus (Petrickova, S)

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## **Overview**

Welcome to Math 220! This is a brief description of the course structure and the tools which you will need, as well as some helpful advice.

## About the Course

In a normal year students would attend lectures three days per week (MWF) and would attend smaller recitation sections run by a graduate teaching assistant the other two days per week (T/TH). This year the format will necessarily be somewhat modified: Lectures will be delivered asynchronously. Video lectures will be posted to the course moodle (together with lecture notes) and also embedded in your lecture quizzes on WebAssign. You are expected to watch these videos and will be asked some simple quiz-type questions to make sure that you have been following the material.

Recitation sections will be mostly Live. These will be run by a graduate teaching assistant over Zoom. The TA will break you into small groups where you will work on a worksheet focused on the topics you learned in lecture videos from the previous day. The entire group will receive the same grade. We expect that *most* students will be able to find a recitation section that they will be able to attend. If you are working remotely in a situation that precludes participation in a recitation section then we will make some other arrangement.

#### Workflow (first week shown):

- Monday (watch on your own): Complete Lecture 1 (videos with simple questions) on your own on WebAssign, complete assigned reading, do as many homework problems as you can.
- Tuesday (Live): Join your Discussion Section zoom meeting, actively work on a Worksheet 1 in a group of 3-4 students.
- Wednesday (watch on your own): Complete Lecture 2 (videos with simple questions) on your own on WebAssign, complete assigned reading, do as many homework problems as you can.
- Thursday (Live): Join your Discussion Section zoom meeting, actively work on a Worksheet 2 in a group of 3-4 students. HW 1 due at the end of the day.
- Friday (watch on your own): Complete Lecture 3 (videos with simple questions) on your own on WebAssign, complete assigned reading, do as many homework problems as you can.
- the following Monday: HW 2 due at the end of the day.
- the following Tuesday: HW 3 due at the end of the day.

#### **Technology:**

You will need:

- A computer or tablet to watch instructional videos and to participate in class meetings on zoom.
- The ability to scan homework and exams to a pdf file (for this a smartphone will suffice).
- Ideally, you would have a touchscreen device with a stylus and a smartphone.

Tools:

- <u>Webassign</u>: This is a paid service. You will need it to do the homework online. it also includes access to an electronic copy of the textbook, Stewart's Early Transcendentals. You will not need to purchase a physical copy of the textbook. The same text is used in Calculus I,II,III so if you plan to take Calc II, it is probably worth your while to purchase access for multiple semesters. Note that other classes that use Webassign (Diff Eq, Linear Algebra) use a different text and your calculus access will not transfer to those other classes.
- <u>Gradescope:</u> You will need this to turn in worksheets in recitation sections.
- <u>Campuswire:</u> You will receive an invite to the class space for Math 220. It is a good resource for asking questions of me, the teaching assistants, and your peers. I would not recommend paying for the premium service: we will only be using the free features.

- Start assignments early and try to keep up to date.
- When you are confused about something, ask questions.
- When possible, provide help to your peers through campuswire or class discussions.
- Engagement is important, especially in this format.

## **Syllabus**

### **Instructor:** Sarka Petrickova petrckv2@illinois.edu Virtual Office Hours: Monday 3pm-4pm, Friday 8am-9:30am

#### **Head TA:** Jenna Zomback zomback2@illinois.edu

#### Course webpage: https://learn.illinois.edu/

**Homework & Text:** Homework will be on the online system WebAssign, which automatically comes with the e-text that we will be using, Stewart's Calculus, Early Transcendentals, 8th edition. Access to WebAssign and the etext will be free until September 5th. After that date, you will need the access code, which can be purchased at the University Webstore at <u>https://webstore.illinois.edu/shop/search.aspx?</u> <u>keyword=stewart</u>. For more details see <u>http://go.illinois.edu/CalculusBookInfo</u>. You will NOT need to purchase a physical copy of the textbook. The same text is used in Calculus I,II,III so if you plan to take Calc II it is probably worth your while to purchase access for multiple semesters. Note that other classes that use Webassign (Diff Eq, Linear Algebra) use a different text and your calculus access will not transfer to those other classes.

#### **Course Description:**

This is a standard first course in Calculus. Topics for this course include functions, limits, continuity, the derivative, differentiation of algebraic and trigonometric functions with applications including curve sketching, anti-differentiation and applications of integrals, the Riemann sum, and the Fundamental Theorem of Calculus. More info about the course here: <u>https://math.illinois.edu/resources/department-</u> resources/syllabus-math-220

#### Grades:

The final grade will be computed based on these percentages:

- WebAssign 15% (Lecture quizzes 5% + Homework 10%)
- Participation in discussion sections: 10%
- 6 Midterm Exams: 55% (Highest five scores: 10% each. Lowest score: 5%)
- Final Exam: 20%

Overall grade cutoffs will never be stricter than 90% for an A- grade, 80% for a B-, and so on. We will not curve the final averages down. For example, if your final average in the class is 80 % then your grade will be at least a B-.. The precise function which assigns a letter grade to each

#### WebAssign (15%)

Lecture quizzes (5%): You will be asked to watch prerecorded videos and answer simple questions every Monday, Wednesday, Friday. Lecture quizzes from Monday will be due by the end of that day.

Homework (10%): Homework will be assigned for each lecture.

You should always try to finish the homework before the next lecture. The hard deadline will however be one business day after that:

Homework from Monday's lecture will be due Thursday 11:59pm. Homework from Wednesday's lecture will be due Monday 11:59pm. Homework from Friday's lecture will be due Tuesday 11:59pm.

All assignments for the week will be released by Monday 8am, so you can start working on all of them early.

There are NO EXTENSIONS (no late homework will be accepted). Your two lowest homework grades will be dropped at the end of the

semester.

To access WebAssign, login here using your U of I netid and password:

#### <u>https://www.webassign.net/uiuc/login.html</u>

To ensure your HW scores are correctly recorded, you should always use the above link to access WebAssign. You may need to wait 24-48 hours after registering for the course to be able to log in to WebAssign. For technical problems, contact WebAssign student support; for questions or concerns about HW grades, talk to your TA.

#### **Participation (10%)**

Active participation in the online learning environment is vital to your success in this course.

Discussion sections on Tuesday/Thursday will be mostly be Live via Zoom. Links to Zoom meetings will be available on the course webpage in the tab called 'Zoom'. These will be run by a graduate Teaching Assistant (TA). The TA will break you into small groups (3-4 students) where you will work on a worksheet focused on the topics you learned in lecture videos from the previous day. The entire group will receive the same grade. We expect that most students will be able to find a recitation section that they will be able to attend. If you are working remotely in a situation that precludes participation in a discussion section then we will make some other arrangement (please email me and your TA as soon as possible if that's the case).

Worksheets will be graded for effort and participation with emphasis on working together as a group. Missing a worksheet results in a score of zero, but the lowest 2 scores in this category will be dropped. You must be on time and stay for the whole discussion section to obtain any participation points.

This semester, your TAs are going to teach more hours to allow for smaller sections. Please take advantage of their time, they are there to help you learn.

Note that on every midterm exam, at least one problem will be taken from a worksheet.

#### Midterm Exams (55%)

We will have six short midterm exams, first one during the third week and then every two weeks until the week before Thanksgiving. All our midterm exams will be on Wednesdays 10 AM-10:50 AM. The conflict exams will be the evening after, Wednesday 8 PM-8:50 PM, and the morning after, Thursday 8 AM-8:50 AM.

Exam	Date	Material Covered
Midterm 1	September 9	Weeks 13
Midterm 2	September 23	Weeks 35
Midterm 3	October 7	Weeks 57
Midterm 4	October 21	Weeks 79
Midterm 5	November 4	Weeks 911
Midterm 6	November 18	Weeks 11-13

Every Midterm Exam will contain one problem from a lecture, one problem from a worksheet, and one problem from a WebAssign homework.

#### Final Exam (20%)

This will cover all class material. Exact days and times to be announced later (mid-October).

#### Netiquette:

Write clearly and professionally. In any course-related communication (emails, chats, discussions), use standard proper English with correct grammar. Stay on topic. Whether you are writing a discussion post or a message to your instructor, stay focused on the topic. In an online course, most communication is done through written messages either in private posts or public discussions. It is important that students in online courses be especially sensitive to how messages and sentiment are communicated and received. Remember you are communicating with real people. Be kind and ethical. Do not belittle other students or the TAs or the instructor. You may disagree with what someone says, but focus on the issue, not the person. Instead, be overly kind. Thank people for their response. Let them know you appreciate their time, how quickly they responded, etc. **Behave online as you would in person.** Be forgiving of the mistakes of others. Thank you!

#### Academic integrity

Violations of academic integrity will be taken seriously, and will be handled under the procedures of Article I, Part 4 of the student code.

#### **Resources for students with disabilities:**

To obtain disability-related academic adjustments or auxiliary aids, students with disabilities should contact the course instructor and Disability Resources and Educational Services (DRES).

To contact DRES, you may visit 1207 S. Oak St., Champaign, call 333-4603, e-mail disability@illinois.edu or go to the DRES website.

#### Support resources and supporting fellow students in distress

As members of the Illinois community, we each have a responsibility to express care and concern for one another. If you come across a classmate whose behavior concerns you, whether in regards to their well-being or yours, we encourage you to refer this behavior to the Student Assistance Center (333-0050) or online at odos.illinois.edu/community-of-care/referral/. Based upon your report, staff in the Student Assistance Center reaches out to students to make sure they have the support they need to be healthy and safe.

Further, we understand the impact that struggles with mental health can have on your experience at Illinois; significant stress, strained relationships, anxiety, excessive worry, alcohol/drug problems, a loss of motivation, or problems with eating and/or sleeping can all interfere with optimal academic performance. We encourage all students to reach out to talk with someone, and want to make sure you are aware that you can access mental health support at the Counseling Center (<u>counselingcenter.illinois.edu</u>) or McKinley Health Center (<u>mckinley.illinois.edu</u>). For mental health emergencies, you can call 911 or walk-in to the Counseling Center, no appointment needed.