# Math 11A (Calculus with Application) Syllabus

**Instructor:** Yuk Shing Lam

Lecture: MWF 11:30 am - 1:30 pm on Zoom

Office hours: TBD

Email: <u>ylam14@ucsc.edu</u>

**Teaching Assistant:** Sam Johnson Discussion Sections: TBD on Zoom

Office hours: TBD

Email: sjohns18@ucsc.edu

#### Communication

Please do not hesitate to contact me or TA if you have any questions or concerns or if you need any kind of assistance. When needed, we will refer you to trained professionals with your consent. Our preferred mean of communication is email. Please do include the year, quarter, and class number in the subject title. You may expect a response within 24 hours. It might extend to 48 hours when it comes to public holidays and weekends. If there is no reply after that time frame, you should probably follow up with us. Chances are your email is either missed or placed in spam.

# **Course Learning Goals:**

- 1. Familiarize with mathematical terms and notations
- 2. Describe natural phenomena using mathematical language
- 3. Interpretate rates of change and compute derivatives
- 4. Apply mathematical models in real life situations
- 5. Develop logical and critical thinking skills
- 6. Utilize teamwork
- 7. Prepare for upcoming Math courses

#### **Materials:**

Edfinity Access Code (~25 USD per course)

All homework assignments will be done via Edfinity.

Biocalculus: Calculus for Life Sciences by Stewart and Day.

Students are not required to purchase textbooks but the course will closely refer to it.

# **Math 11A (Calculus with Application)**

#### **Grading Policy:**

The tentative cutoffs of the letter grades are as follows. They might be changed (curved) according to your overall performance.

Letter Grade	A- A+	B+ B-	C+ C-	D+ D-	F
Overall Score	97-100 93-97 90-93	87-90 83-87 80-83	77-80 73-77 70-73	67-70 63-67 60-63	0-60

The Grade distribution is as follows:

## Homework (20%)

Homework will be done weekly via Edfinity due every Friday night.

## Pre-Lecture Quiz (10%)

Pre-Lecture Quizzes are very short assignments integrated into the Modules on Canvas. They are designed to help understanding preliminary contents before each lecture. Therefore, students are supposed to finish the quizzes before each lecture. The lowest 10 quizzes will be dropped to account for any absence or issues.

# <u>Lecture Participation</u> (6%)

This part of the grade emphasizes on attendance and social interaction during lecture. Three out of 12 counts will be dropped to account for any absence or issues.

#### Section Participation (4%)

This part of the grade emphasizes on attendance and social interaction during weekly section. Note that you only need to show up to one section every week. One out of four counts will be dropped to account for any absence or issues.

## Worksheet (20%)

Worksheet, as a weekly assignment, will be due every Sunday night on Gradescope. It can be worked on groups of at most 5 members. Your TA may assist and guide you, but it is ultimately your responsibility to complete it. One will be dropped to account for any absence or issues.

#### Midterm (20%)

A midterm exam will be help on 5<sup>th</sup> July. Please see announcement for further details.

#### Final (20%)

The final exam is cumulative and will be held on 22<sup>nd</sup> July. Please see announcement for further details.

# **Math 11A (Calculus with Application)**

#### **Academic Integrity:**

All members of the UCSC community benefit from an environment of trust, honesty, fairness, respect, and responsibility. You are expected to present your own work and acknowledge the work of others to preserve the integrity of scholarship. The following are examples of academic dishonesty. They are not limited to but includes:

Plagiarism - The use of another person's words or ideas without acknowledgment. Cheating -

- not limited to but including possession, communication, or use of information, materials, notes, study aides or other devices not authorized by the instructor in an academic exercise.
- 2) Collaboration and/or communication with another student or individual during exam without the consent of the instructor

If one violates the rules of academic integrity, one or multiple of the following might be given as a penalty: verbal warning, written warning, zero on the corresponding assignments, and reporting to the Academic Tribunal

#### **Tentative Schedule:**

Week	Content	Homework/Project/Exam due	
1	Function, Sequence, and Limits Module 1 - 7	Quiz due before each lecture Homework 1 due on 24 <sup>th</sup> June Worksheet 1 due on 26 <sup>th</sup> June	
2	Derivatives and Its Computation Module 8 - 16	Quiz due before each lecture Homework 2 due on 1 <sup>st</sup> July Worksheet 2 due on 3 <sup>rd</sup> July	
3	Linear Approximation and the Use of Derivatives Module 16 - 19	Midterm on 5 <sup>th</sup> July Quiz due before each lecture Homework 3 due on 8 <sup>tht</sup> July Worksheet 3 due on 10 <sup>th</sup> July	
4	More Application of Derivatives Module 20 - 24	Quiz due before each lecture Homework 4 due on 15 <sup>th</sup> July Worksheet 4 due on 17 <sup>th</sup> July	
5	Anti-Derivatives and Review Module 25	Quiz due before each lecture Homework 5 due on 22 <sup>nd</sup> July Worksheet 5 due on 22 <sup>nd</sup> July Final on 22 <sup>nd</sup> July	

# **Math 11A (Calculus with Application)**

# **Administratively Important Days:**

Last day to add  $-23^{rd}$  June (Thursday of Week 1) Last day to drop  $-23^{rd}$  June (Monday of Week 2) Holiday  $-20^{th}$  June (Monday of Week 1) and  $4^{th}$  July (Monday of Week 3) Request "W" Grade  $-10^{th}$  July (Sunday of Week 4) Change Grade Option  $-17^{th}$  July (Sunday of Week 5)

# **Support/Help Option:**

Tutoring and Learning Support
Sexual Violence Prevention & Response (SAFE) website
Hate/Bias Report Form
Counseling and Psychological Services
On-Campus Emergency Contacts

I reserve the right to change any particular of the syllabus above. Any changes will be to your advantage, the teaching efficiency, or/and the fairness of grading, and you will be informed promptly.