***MATH 180– Analytic Geometry and Calculus I***

***Cuyamaca College***

***Spring 2018***

**Instructor: Lamia Raffo E-MAIL:** [lamia.raffo@gcccd.edu](mailto:lamia.raffo@gcccd.edu)

**Section#: 9380 Room:** H – 134   **TTH** 2:30 pm – 4:45 pm **Office:** H – 117

**Office Hours:** M**-**TH 9:15–9:45 am & MW 2:00 – 3:00 pm

**Class key: cuyamaca 7202 1654**

**Canvas Site**: <https://www.cuyamaca.edu/academics/canvas/default.aspx>

**Course Description:**

In this course, graphic, numeric and analytic approaches to the study of analytic geometry, limits and continuity of functions, and introductory differential and integral calculus will be explored. Also, applications involving analysis of algebraic, exponential, logarithmic, trigonometric, and hyperbolic functions from a variety of disciplines including science, business and engineering will be studied. First of three courses designed to provide serious science students with a solid introduction to the theory and techniques of analysis. AA/AS GE, CSU, CSU GE, IGETC, UC credit limit

**Prerequisites:**

Math 176 or Math 170 & Math 175 with a grade of C or better.

* **Length of class**: 16 weeks/ 5 hours lecture.

**Textbook**: (**Optional**) Stewart, James; *Single Variable Calculus: Early Transcendentals*, 8thEdition. The class key for this section of Math 180 is **cuyamaca 7202 1654** (yes there are spaces).

**Webassign access code: (Required) You can choose one of the following options:**

* The best value for students who want to own a printed text and get Webassign access for all three quarters of calculus is the following bundle that you can purchase online at the following Cengagebrain.com site. Here’s the URL:

<http://www.cengagebrain.com/shop/search/9781305710306>

* You can also purchase this bundle at the bookstore.
* For those of you who want to rent a printed text, you can also do that via Cengagebrain.com here using this link:

<http://www.cengagebrain.com/shop/search/9781285741550>

* If you don’t want or need a printed text, you can purchase multiple term access to Webassign with the ebook when you register for the course:

<https://www.webassign.net/features/textbooks/scalcet8/details.html?l=search>

**REQUIRED MATERIALS**

1. A **graphing calculator** is **REQUIRED**. The Mathematics Department of Cuyamaca College highly recommends Texas Instruments graphing calculators. For this course, I recommend the use of a TI-83 or a TI-84 Plus.

There is **no sharing of calculators during exams**. A cell phone cannot be used as a calculator (nor should it be visible during lectures and especially exams).

[](https://www.google.com/search?biw=1067&bih=522&tbm=isch&q=graphing+calculator+ti+84&revid=865727544&sa=X&ei=CbC4VNjHK4bWoATit4DoAw&ved=0CCAQ1QIoAA)

1. You'll need a 3-ring notebook, loose-leaf notebook paper, and graph paper.

**COURSE FORMAT:** Note that the attached lecture, assignment and exam schedule is subject to change. These changes will always be announced in class early enough to give you time to meet the assignment deadlines, but it is your responsibility to maintain your schedule, making requisite changes as necessary. Absence will not be considered an excuse for not keeping your schedule updated.

**Additional Support:**  <https://www.cuyamaca.edu/academics/canvas/default.aspx>

You have a **Canvas account** for Math 180 with links to the syllabus, all handouts, notes, group work sheets, Exams study guide, important announcements, checking grades, etc…

Use the gray menu panel to the left to check your browser’s compatibility and check that the necessary plug-ins are installed use this link <http://www.cuyamaca.edu/helpdesk/>

**IMPORTANT DATES:**

|  |  |
| --- | --- |
| **January 29 - February 9** | [Program Adjustment](http://www.cuyamaca.edu/cc/program-adjustment.asp) (Last day to add classes/Last day to drop and qualify for a refund and to drop without receiving a “W”). |
| **February 12** | Census Day (Semester length Classes) |
| **February 19** | **Holiday (Washington's Birthday)** |
| **March 2** | Last Day to [Apply for P/NP](https://www.cuyamaca.edu/services/admissions/forms.aspx#pnp) (semester length classes) |
| **March 24** | End of First 8-weeks Session |
| **March 26 - March 31** | **Spring Recess** |
| **April 27** | Last day to drop with a “W‟. (It is the student’s responsibility to take care of any administrative procedures involved in dropping should he/she stop attending class.) |
| **May 28** | **Holiday (Memorial Day)** |
| **May 29 - June 4** | **Final Examinations** |
| **Tuesday, May 29th** | **Final Exam from 2:15 pm – 4:15 pm** |

You can see the Spring 2018 academic calendar in its entirety at <http://www.cuyamaca.edu/current-students/academic-calendars/default.aspx>

**Class Procedure & Participation:**

You are expected to arrive on time and attend all class meetings. Completing the course successfully involves satisfactory performance on exams, homework, and group work. This 5-unit course requires at least 10 hours of homework per week. If you don’t have 15 hours per week for this class, RECONSIDER your plans and priorities so you can get the grade you want**.**

**Attendance and tardiness:**

1. Attendance is mandatory. Missing more than 3 classes can result in being dismissed from the course. You may be dropped from the class on your 4th day. See the instructor for prior approval if prolonged absence is unavoidable. If for some reason you decide to withdraw from this class, please do so officially. **Do not assume that I will drop you from class by the required date. Dropping the course is ultimately the student’s responsibility**. All students are responsible for all information and announcements made during the lecture period.
2. Chronic tardiness will not be tolerated, as it is disrespectful to the instructor and your classmates, as is leaving the lecture early before officially dismissed. Consistent tardiness will be sufficient cause for exclusion from the class. You will be expected to stay until the class is over to receive credit for attending that session. Every two tardy are considered as one absence.
3. You are reminded that a “W” cannot be recorded for you after April 27**th.** If you fail to withdraw by this date, I **cannot** drop you and you willreceive an evaluative letter grade in this class

**Tutoring:**

If you feel you need more help than I or other classmates can offer there is free tutoring available in the STEM Achievement Center. You can register for “IS 198” (free registration; you don’t have to pay for it) which allows you to log in to the system after 24 hours of registration. You must log in and out each time you use the STEM Center regardless of the hours you have accumulated (this is for state reporting). The hours of the STEM Center are Monday through Thursday 9:00 am – 6:00 pm and Friday 9 am – 2:00 pm.

**Evaluation Tools**

**\*Homework:** It is imperative that you read the material in your textbook before it is covered in class and complete the homework assignments in a timely and responsible manner. You can request no more than two homework extensions for the semester (none after the Exam which covers the material); however, I will drop your two lowest scores (the last two homework **cannot be dropped**; the two dropped scores are there for emergency situations). Homework assignments will be assigned and completed on WebAssign; and they are graded automatically. Homework due dates are found on the WebAssign site for the class.

**Note:** Any homework questions will be covered at the beginning of class. You may not do homework for another class while being in Math 180 class.

**\*Exams:**  There will be four exams during the semester. Each exam is worth 100 points. You **CAN NOT** make-up a missed exam! However, in the event of an emergency, communicate with me immediately or preferable a few days before the exam to possibly arrange an appointment for you to take the exam. Students will have assigned seating during each exam, so for each exam day sit according to the instructor’s rule.

**Note**: you **may not** use your cell phone as a calculator on exams.

**\*Quizzes:**

Each week you may have a short homework quiz via webassign; each will open after class and is due by 11:59 pm on Sunday. The quizzes will be open-book, open-notes. The problems will be lifted DIRECTLY from the previous week’s assigned homework or similar. In addition, you may have short homework quizzes (**pop quiz**) in class at the beginning of class from 10 – 10:10 am. There are no extension requests for online quizzes but I will drop one of your lowest Quiz scores. Each quiz is worth 10 points

**\*Group Work [ In-Class Activities, Take-home Assignments, and Projects]** Students are expected to solve problems and work together with other students in groups on some special assignments and class work activities.

There will be two take-home assignments during the course of the semester which you will have to complete by yourself or with a partner (each student submits their own assignment). Each group work is worth 10 points.

**\*Final Exam:**

There will be a comprehensive final. You are not allowed to drop the final exam.

***Final Exam:* Tuesday, May 29th from 2:15 pm – 4:15 pm**

**Grading Weights & Policy:**

Your final grade will be based on:

* HOMEWORK 15%
* EXAMS 40%
* QUIZZES 15%
* GROUP WORK 10%
* FINAL 20%

**A: 90 – 100% B: 80-89.9% C: 70-79.9% D: 60-69.9% F: below 60%**

**Student Learning Outcomes:**

Upon successful completion of this course, students will be able to:

1. Compute the limit of a function at a real number.
2. Determine if a function is continuous at a real number.
3. Find the derivative of a function as a limit.
4. Find the equation of a tangent line to a function.
5. Compute derivatives including implicit differentiation.
6. Use differentiation to solve applications such as related rate problems and optimization problems.
7. Graph functions using methods of calculus.
8. Evaluate a definite and indefinite integral.
9. Apply integration to find area.

**Food Policy:**

* You may have drinks in class as long as it is in a container that can be closed tightly and is not likely to spill if dropped. I encourage you to use your own reusable drink container for class.
* Generally speaking no food is allowed during class time; I do not want the distraction of food during class.
* Be aware that NO drinks or food are allowed in any computer lab and upstairs in Science labs and in the STEM Achievement Center.

**Class Policies:**

* All cell phones must either be turned off or put on vibrate during class time. They are not allowed on desks **or in your pockets during exams.**
* Math is not a spectator’s sport. A student *may* be dropped for four or more absences but the student is ultimately responsible for officially withdrawing from the course. If absences become a problem, please come and speak with me.
* If you miss class you must email the instructor to inform her of the absence.
* If you are caught cheating (using cellphone or notes) or plagiarizing, you will earn a ‘0’ on that assignment. If it happens a second time, you will earn a ‘0’ on that assignment and I will report the incident to the Student Affairs Office.
* You are responsible for getting class notes and any schedule changes or other announcements on days missed from the class. Find a class partner early in the semester to make this easier on yourself. Any changes and announcements will be posted on Canvas.
* You are expected to be courteous to each other and to the instructor. You will be asked to leave the class for display of behavior the instructor deems as disruptive to the learning environment.
* You are expected to work actively with your peers, sharing, taking and giving, listening and explaining, questioning and answering. You are responsible for being prepared for participation in class discussions and in group work, and for assisting your peers to come to an understanding of mathematics.
* This course adheres to the policies outlined in the Cuyamaca College catalogue. For further information, see Academic Policies stated in the catalogue.

**ACCOMIDATIONS FOR STUDENTS WITH DISABILITIES**

Academic accommodations are available for students with disabilities.

Please identify yourself to me (after class) and/or to **Disabled Students Programs & Services** staff so that the appropriate accommodations can be ensured. If you suspect you have a learning disability or need services for any other type of disability, contact the **Disabled Students Programs & Services** **(DSP&S)** Office, **A-113**, at the **Student Services One-Stop Center** or call (**619) 660-4239.**

**Advice:** College math courses are very demanding. Keeping up with homework, asking questions, and not falling behind will help you succeed.

**Good Luck and Have a Great Semester!**

**Projected Course Outline SP 18 (subject to change with prior**

**notice) Class activities are not included in the schedule below (they’ll be announced in class)**

|  |  |
| --- | --- |
| **Tuesday** | **Thursday** |
| 1/30 Introduction, Review | 2/01 2.1 |
| 2/06 2.1, 2.2 | 2/08 2.3, 2.4 (intro.) |
| 2/13 2.5, 2.6 | 2/15 2.6, 2.7 |
| 2/20 2.7, 2.8 | 2/22  2.8 |
| 2/27 3.1 | 3/01 **Group Work 1**  **Exam #1** |
| 3/06 3.1, 3.2 | 3/08 3.2, 3.3 |
| 3/13 3.3, 3.4 | 3/15 3.4, 3.5 |
| 3/20 3.5, 3.6 | 3/22 3.6, 3.9 |
| **March 26 \_ 31 Spring Recess** | **March 26 \_ 31 Spring Recess** |
| 4/03 3.9, 3.10 | 4/05 **Group Work 2**  **Exam #2** |
| 4/103.10 | 4/12 4.1, 4.2 |
| 4/17 4.2, 4.3 | 4/19 4.3, 4.4 |
| 4/24 4.4, 4.5 | 4/26 **Group Work 3**  **Exam #3** |
| 5/01 4.5, 4.7 | 5/03 4.7, 4.9 |
| 5/084.9, 5.1 | 5/10 5.1, 5.2 |
| 5/15 5.3, 5.5 | 5/17 **Group Work 4**  **Exam #4** |
| 5/22 5.5, 6.1 | 5/24 6.1, review |

**NOTE:** You must earn a minimum of 70% in your overall grade in this class, AND you must earn at least a “D” on your final exam in order to receive a Passing Grade.

**FINAL EXAM *Tuesday, May 29th, 2018 in Room H-134***

***from 2:15 pm – 4:15 pm***