

Math 5A: Math Analysis I, SPRING 2014

Instructor: Walid Tayar

Email: walid.tayar@reedleycollege.edu

Phone: 559-638-3641 ext. 3263 (use email)

Office hours: M-TH 8:15am-9:00am in FEM 1K or by appointment

Course: 52940 M-F from 9:00am-9:50am in CCI 206

Prerequisites:

Subject Prerequisites: C grade or better in Math 4B or equivalent or Math 4C.

Basic skills advisories: Eligibility for Engl 125 and Engl 126

Required text:

Howard Anton. Calculus, Early Transcendentals, Single Variable, 10th Edition.

The Student Solutions Manual (Optional) can be purchased at the bookstore.

Catalog Description:

Introduction to calculus, analytic geometry, differentiation and integration of polynomial, exponential, logarithmic and trigonometric functions; limits; curve sketching and applications.

Class Notes:

Notes for this class are available at the bookstore and are required.

Course Materials:

- Calculator (Scientific non-graphing and TI-83 or 84 (I will discuss this in class))
- Two spiral grid paper notebooks, Cambridge brand in the bookstore. No other notebooks accepted!
- 3-ring binder (for class notes)
- Ruler
- Pencils and Eraser
- Stapler (try the dollar store)

Blackboard: You can access blackboard at <http://blackboard.reedleycollege.edu>

Username: "your student ID#"

Password: "your student ID#"

Homework Notebook:

HW will be assigned after each lecture and you will be required to complete all of your homework in a notebook. Your homework will be graded on completeness, neatness, and effort. Clearly highlight the section number at the top of each page. Problems must be written out in pencil and all work must be shown in order to receive credit. Your final answer for each problem needs to be circled or boxed in. Make sure to write out each problem and solution. Word problems do not need to be written out. The required notebook can be purchased at the book store. This will be a part of your notebook grade. The notebook will be collected randomly throughout the semester but no less than once a week so you will need to stay current and be prepared to turn it in at anytime. YOU MUST HAVE TWO NOTEBOOKS that way you will always have one in your possession and to allow me time to get them graded and back to you. You can earn up to half credit for a past due notebook if turned in by the beginning of the next class meeting (see attached example of notebook entries).

Attendance:

If you are absent more than once in the first two weeks of the semester, more than twice in the first four weeks or more than 3 times in the first nine weeks, you may be dropped from the course. Attendance is a key factor in your success as a college student. Students are expected to attend all class meetings, be on time, and be in class the entire class session. 5 absences over the course of the entire semester may result in a drop from the course. However, if you decide to drop the course, it is your responsibility to make the drop official in the Admissions and Records office or else possibly receive an F in the course. Also, there are to be no visitors in class for any reason. Pagers, cell-phones, CD/DVD/MP3 players, and any other electronic device must be turned off, silenced, and out of sight before entering class. You will be asked to leave if your phone rings in class. Also, cell phones are NOT to be used as calculators. NO EXCUSES!!

Tardies:

It is distracting, rude and unfair to classmates and to the instructor when a student is late. Leaving class at anytime during the lecture will not be allowed. Please use the restroom/make phone calls before or after class. If you leave class at any time, it will count as a tardy. Two tardies will be counted as an absence. You are responsible for telling me, at the end of class, that you were tardy. If I mark you absent and you do not tell me of your tardy, you will remain absent. If you leave class early, you will be marked absent. Students with chronic tardiness may be dropped from the course.

In-Class Assignments:

There will be quizzes, in-class assignments and possibly group projects assigned throughout the semester. No in class assignments can be made up so attendance is very important. These assignments will be included as part of your HW grade.

Exams:

There will be an exam at the end of each unit, approximately every 2-4 weeks. Each exam will be worth 100 points each. There are no make-ups for missed tests. No exceptions. Calling the day of the exam and telling me that you cannot make it to class is inexcusable. All tests will be taken using pencil. A final exam worth 100 points will be given at the end of the semester during finals week.

ALL CELLPHONES/ELECTRONICS ARE TO BE COMPLETELY OUT OF SIGHT AND TURNED OFF DURING THE EXAMS OR YOU WILL RECEIVE A 0% ON THAT EXAM AND IT WILL NOT BE DROPPED OR REPLACED BY THE FINAL EXAM SCORE. THIS WILL BE COUNTED AS CHEATING (SEE CHEATING POLICY BELOW). NO EXCEPTIONS!!!

Grading:

- Chapter Exams and the Final will be worth 85% of your overall grade. At the end of the semester, your lowest exam score will be replaced by your score on the final.
- Homework Notebook will be worth 15% of your overall grade.

<u>Percent</u>	<u>Grade</u>
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Lecture Outline:

- A. Functions
- B. Limits and Continuity
- C. Derivatives
- D. Logarithmic and Exponential Functions
- E. Analysis of Functions and their Graphs
- F. Applications of the Derivative
- G. Integration

Important Dates:

- January 13 (M) Spring 2014 instruction begins
- January 13 - March 14 (M-F) Spring 2014 short-term classes, first nine weeks
- January 20 (M) Martin Luther King, Jr. Day observed (no classes held, campus closed)
- January 24 (F) Last day to request an Enrollment Fee Refund
- January 31 (F) Last day to add a full-term class for Spring 2014
- January 31 (F) Last day to drop a full-term class to avoid a "W" (in person) for Spring 2014
- January 31 (F) Last day to drop a full-term class to avoid a "W" (on WebAdvisor)
- February 13 (Th) Last day to change a class to/from a Pass/No-Pass grading basis
- February 14 (F) Lincoln Day observed (no classes held, campus closed)
- February 17 (M) Washington Day observed (no classes held, campus closed)
- March 14 (F) Last day to drop a full-term class (in person) (letter grades assigned after this)
- March 17 - May 23 (M-F) Spring 2014 short-term classes, second nine weeks
- March 20-31 (Th-M) Summer/Fall 2014 registration begins for continuing students
- April 14-17 (M-Th) Spring Recess (no classes, campus open, classes reconvene April 21)
- April 18 (F) Spring Holiday observed (no classes, campus closed, classes reconvene April 21)
- May 19-23 (M-F) Spring 2014 final exams week
- May 23 (F) End of spring semester/commencement

Special Needs Requests:

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Academic Dishonesty

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

Note: This syllabus is subject to change at the discretion of the instructor.

Section 6.1

① Find the greatest common factor

$$77 = 7 \cdot 11$$

$$343 = 7 \cdot 7 \cdot 7$$

$$\text{GCF} = \boxed{7}$$

②

$$66 = 2 \cdot 3 \cdot 11$$

$$78 = 2 \cdot 3 \cdot 13$$

$$\text{GCF} = 2 \cdot 3 = \boxed{6}$$

③

$$12 = 2 \cdot 2 \cdot 3$$

$$28 = 2 \cdot 2 \cdot 7$$

$$24 = 2 \cdot 2 \cdot 2 \cdot 3$$

$$\text{GCF} = 2 \cdot 2 = \boxed{4}$$

④

$$a^6$$

$$a^8$$

$$\text{GCF} = \boxed{a^6}$$

⑤

$$a^7 b^2$$

$$a^7 b^6$$

$$\text{GCF} = \boxed{a^7 b^2}$$

⑥

$$55 = 5 \cdot 11$$

$$35 = 5 \cdot 7$$

$$x^2$$

$$x^7$$

$$\text{GCF} = \boxed{5x^2}$$

⑦

$$3y - 6 = \boxed{3(y-2)}$$

⑧

$$14a^2 + 3a = \boxed{a(14a+3)}$$

⑨

$$315x^2 + 105x + 21$$

$$315 = 3 \cdot 3 \cdot 5 \cdot 7$$

$$105 = 3 \cdot 5 \cdot 7$$

$$21 = 3 \cdot 7$$

$$\text{GCF} = 21$$

$$\frac{315x^2}{21} + \frac{105x}{21} + \frac{21}{21}$$

$$\boxed{21(15x^2 + 5x + 1)}$$