

## **Math 5B: Math Analysis II, FALL 2014**

**Instructor:** Walid Tayar

**Email:** [walid.tayar@reedleycollege.edu](mailto:walid.tayar@reedleycollege.edu)

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

**Office hours:** MTWTH 8:30am-9am in FEM 1K or by appointment

**Virtual Office Hour:** Friday 8:30am-9:30am via email

**My Math Center hours:** MTWTH 9:00am-9:50am in FEM 1

**12:00-12:50pm Class Schedule #:** 59941 M-TH in room FEM 4

### **Prerequisites:**

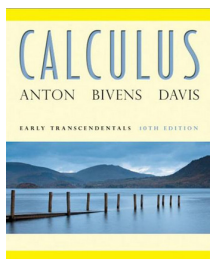
Subject Prerequisites: Math 5A or equivalent.

Basic skills advisories: Eligibility for Engl 125 and Engl 126

### **Required text:**

Anton, Bivens, and Davis. Calculus, Early Transcendentals, Single Variable, 10<sup>th</sup> Edition.

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



### **Catalog Description:**

This class investigates the applications of integration, many techniques of integration, improper integrals, parametric equations, polar coordinates and functions. Further study involves conic sections, exponential growth/decay models, infinite series including Maclaurin and Taylor Series.

### **Required Course Materials:**

- Calculator - scientific non-graphing and TI-83 or 84 (I will discuss this in class)
- Pencils/rulers/paper etc.
- Class notes to be printed from Blackboard
- 3-ring binder (for class notes)
- TWO Mead Cambridge Quad Wire-bound Notebook (graph paper) from the bookstore for homework. **No other notebook will be accepted!** (See image below)



**Blackboard:**

This course will utilize blackboard for lecture notes, announcements, handouts, assignments, etc. You can access blackboard from the Reedley College homepage or at <http://blackboard.reedleycollege.edu> . Your login and password to blackboard is as follows:

**Login ID:** “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 before the next class meeting. Your homework will be graded on completeness, neatness, and effort. Clearly highlight the section number at the top of each page and circle the problem numbers down the left side of the page. You may create more columns on each page to fit more work but this needs to be very neat. 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 so you will need to stay current and be prepared to turn it in at any time. **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).

**In-Class Assignments:**

There may be 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.

**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. Four 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. There are to be no visitors in class for any reason. **ALL ELECTROINC DEVICES MUST BE TURNED OFF AND OUT OF SITE BEFORE ENTERING CLASS.** If you need to text or use your phone before class begins, please step outside. You will be asked to leave if your phone rings in class. Also, cell phones are **NOT** to be used as calculators.

**Tardies:**

It is distracting, rude and unfair to classmates and to the instructor when a student is late. Leaving class at any time 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.

**Exams:**

There will be an exam at the end of each unit, approximately every 3-4 weeks. Each exam will be worth 100 points. There are no make-ups for missed exams. No exceptions. Calling the day of the exam and telling me that you cannot make it to class is inexcusable.

YOU MAY NOT LEAVE CLASS DURING AN EXAM. YOU MUST SUBMIT YOUR EXAM BEFORE YOU LEAVE. 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!!

**Final Exam:**

A final exam worth 100 points will be given at the end of the semester during finals week.

**Extra Credit:**

Extra credit maybe assigned and will be applied to each unit. For example, extra credit points earned during Chapter 5 will be applied to your Chapter 5 grade.

**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:**

Integration Review  
Applications of the Definite Integral  
Techniques of Integral Evaluation  
Analytic Geometry  
Exponential Growth and Decay Applications  
Infinite Series

**Important Dates:**

August 11 Start of Fall 2014 semester  
August 11 Short-Term classes, first nine weeks  
August 22 Last day to drop a full-term class for a full refund  
August 29 Last day to register for a full-term Fall 2014 class in person  
August 29 Last day to drop a Fall 2014 full-term class to avoid a "W" in person

August 31 Last day to drop a Fall 2014 full-term class to avoid a “W” on WebAdvisor  
September 1 Labor Day holiday (no classes held, campus closed)  
September 12 Last day to change a Fall 2014 class to or from a Pass/No-Pass grading basis  
October 10 Last day to drop a full-term class (letter grades assigned after this date)  
October 13 - December 12 Short-Term classes, second nine weeks  
November 11 Veterans Day observed (no classes held, campus is open)  
November 27-28 Thanksgiving holiday (no classes held, campus closed)  
December 8-12 Final exams week  
December 12 End of Fall 2014 semester

### **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

$$77 = 7 \cdot 11 \quad \text{GCF} = \boxed{7}$$
$$343 = 7 \cdot 7 \cdot 7$$

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

$$a^2 b^2$$
$$a^3 b^6$$
$$\text{GCF} = \boxed{a^2 b^2}$$

⑥

$$55 = 5 \cdot 11 \quad x^3$$
$$35 = 5 \cdot 7 \quad x^2$$
$$\text{GCF} = \boxed{5x^2}$$

⑦

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

⑧

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

⑨

$$315x^2 + 105x + 21$$
$$315 = 3 \cdot 3 \cdot 5 \cdot 7$$
$$105 = 3 \cdot 5 \cdot 7$$
$$21 = 3 \cdot 7$$
$$\text{GCF} = 21$$

$$\frac{315x^2}{21} + \frac{105x}{21} + \frac{21}{21}$$
$$\boxed{21(15x^2 + 5x + 1)}$$