ANALYTIC GEOMETRY & CALCULUS I

COLLEGE OF ARTS AND SCIENCES – DEPARTMENT OF MATH AND COMPUTER SCIENCE

21933 – MATH 2261-F – SPRING 2013 – 4 CREDIT HOURS

INSTRUCTOR INFORMATION

PROF. SHAUN V. AULT

Office: NH 1125

Office Hours: MTWR, 11:00-12:30

Email: svault@valdosta.edu (preferred method of communication)

Phone: (229) 293-6305 (sorry, no voicemail)

COURSE INFORMATION

Meeting Times: MTWR, 2:00-2:50

Lecture Room: NH 3034

COURSE DESCRIPTION

- Introduction to limits, derivatives, integration, the fundamental theorem of calculus, and applications.

PREREQUISITES

- MATH 1112 or MATH 1113.
- Students are expected to have mastered algebraic concepts such as solving equations, factoring, simplifying rational functions, and using the laws of exponents.

LEARNING OUTCOMES

- Area **A2**. Students will demonstrate mathematical proficiency by analyzing a variety of functions and solving various equations.
- Area **D**. Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical reasoning and concepts to solve problems.

- Learning Goal 3: **Critical Thinking (CT)**. Students will identify, evaluate, and apply appropriate models, concepts, or principles to issues, and they will produce viable solutions or make relevant inferences.

REQUIRED MATERIALS

CALCULATOR

TI-83/84 graphing calculator or equivalent

TEXTBOOK

- ***Thomas' Calculus: Early Transcendentals, 12e***
- **Authors:** Thomas, Weir, and Hass
- **Publisher:** Addison Wesley (Pearson)

All material studied in this course comes from the text. For best understanding of the material, read each section before the lecture on that section.

MYMATHLAB

We will be using the online component of your textbook, called **MyMathLab**. MyMathLab is required, and if you purchase your textbook at the University book store, it will come bundled with a MyMathLab Access Key. To access MyMathLab, follow these steps:

1. Go to www.mymathlab.com, find *Register* on the right, and click the *Student* link.
2. Enter the Course ID for this course: **ault55899**
3. Create a Pearson Account, unless you have already created one in another course that used MyMathLab, in which case, just sign in. Note, even if you already have a Pearson account, you will still need a new Access Key for this course.
4. Enter your **Access Key**. This is the code that comes bundled with your textbook.

If for any reason you cannot register on MyMathLab, please see me! All homework and quizzes will be handled using MyMathLab.

ONLINE HOMEWORK

Homework is the **key** to mastering the concepts of any math course. Without the practice of doing homework – sometimes with much trial and error – students may not gain a proper understanding of the material. In my experience, those who do very little homework naturally get very low grades on tests. In our course, we will do all of our homework sets online, using MyMathLab.

The online homework system at MyMathLab allows you to practice the concepts, with immediate feedback. If you get an answer correct, you will know instantaneously, rather than having to wait to see the grade on a returned homework assignment. If you get an answer incorrect, then you may try again! There are helpful resources available on the website that can guide you to a correct answer, such as **Help Me Solve This** and **View an Example**. The homework is set up to allow unlimited tries for each problem, though you may have to *regenerate* the

problem after three incorrect attempts. In order to get the most out of the online homework system, I recommend the following steps:

- You should review your notes and/or textbook to help you remember concepts or formulas relevant to each problem.
- Try the problem on your own first, but don't simply guess at the answer. This is especially important on multiple choice questions. Make sure you understand why an answer is correct.
- If you have trouble with the problem, try **View an Example** to see one method of solving it.
- When all else fails, use **Help Me Solve This**. This feature walks you through every step of the problem. You should follow along with the process, taking notes if it's a very long or tricky problem! When the steps are completed, and you are confident in your understanding, hit **Similar Exercise** or **Try Again** at the bottom of the screen in order to work another problem out for credit (Using **Help Me Solve This** does not give you credit for answering the question).
- For most problems, after the third incorrect attempt, the problem locks up and shows the correct answer. However, you can always hit **Similar Exercise** or **Try Again** to regenerate the question. When you finally enter the correct answer, you will get full credit for the problem.

ONLINE QUIZZES

The format of an online quiz is similar to that of online homework, except that you do not get immediate feedback whether your answer is right or wrong. For each problem, enter your answer and hit **Next** to move to the next problem. You may review previous problems by hitting **Previous** or selecting the problem number in the navigation bar near the top. When you are finished with the quiz, hit **Submit**. MyMathLab will tell you your score.

- Each quiz must be completed outside of class before the given due date. I recommend using a computer on campus. If you use your own computer, off campus, and you lose internet access in the middle of the quiz, I will not reset the quiz for you! It is your own responsibility to find a way to access and complete the quizzes consistently.
- No notes or textbook may be used, and you may not ask another person for help on the quiz. You are on your honor, as there is no way for me to check whether or not you have cheated. Since the material is also tested on in-class tests, cheating on a quiz will not help you do well in the course.
- After the due date for each quiz has passed, you can go to MyMathLab to review the correct answers.

GRADEBOOK

The grades for each homework set and online quiz are maintained in your **Gradebook** on MyMathLab.

EBOOK

There is an online version of the textbook, broken down by chapter and section. Click **eBook**, select the chapter and section you want to see, and select **Multimedia Textbook Section**. The eBook is a full version of your textbook. You may opt to use the eBook in lieu of a hardcopy of the textbook. In that case, you must purchase your MyMathLab access key directly from the website. Note, if you choose to use the eBook option, you are still responsible for reading the material.

OTHER RESOURCES

You may find the following links under **Tools for Success.**

- **Calculus Flashcards** – a great way to make sure you remember important concepts or formulas before a test!
- **Calculus Review Cards** – a condensed presentation of many important formulas encountered in Calculus. (Not a substitute for reading the textbook!)
- **Formulas and Theorems** – Pay special attention to the **Basic Algebra Formulas** and the first page of **Trigonometry Formulas and Theorems**.

ASSESSMENTS

Your grades are based on the percentage determined by scores on homework, quizzes, tests, and a final exam. Your attendance and participation in the course may also affect your course grade.

GRADE BREAKDOWN BY PERCENTAGE

Homework (MyMathLab)	10%
Quizzes (MyMathLab)	15%
Chapter Tests (in class)	50%
Final Exam	20%
Attendance and Participation	5%

MORE ABOUT THE ASSESSMENTS

HOMEWORK

Assignments will be given weekly, to be completed online at MyMathLab. Each problem set will typically be available for a week before its due date. The homework is automatically saved as your work on it. You may work to improve your score on a homework until 11:59pm on the given due date.

Homework is the best way for you to master the concepts and to practice problems that may show up on quizzes or tests. My best advice is to work on problems from a section as soon as possible after the lecture for that section. If you wait until near the due date of a homework set, you may have a much harder time completing it.

QUIZZES

Quizzes will occur periodically throughout the semester. Each quiz will be conducted on MyMathLab, so it is very important that you can find a computer that stays online consistently. I recommend using a computer on campus in one of the computer labs. Each quiz will have the following format:

- No more than 10 problems chosen from previous homework sets
- To be completed in 40 minutes from the starting time
- Two attempts permitted for each quiz
- Quiz becomes available about two days before the due date
- No notes, textbook, or help from another person or online resource

CHAPTER TESTS

Each test will be administered in class, lasting 50 minutes. The format will include mostly free-response problems, together with some multiple choice and/or matching questions.

FINAL EXAM

A comprehensive final exam, 2 hours in length, will be given at the end of the semester. The format for the final exam will be similar to that of the chapter tests.

ATTENDANCE AND PARTICIPATION

Students are expected to attend every class meeting unless there is an excusable absence, such as illness, serious family emergency, or a University-sponsored sporting event in which you are participating. The VSU Undergraduate Catalog states that:

> *A student who misses more than 20% of the scheduled classes of a course will be subject to receiving a failing grade in the course.*

Participation in the course includes:

- Completing every assignment
- Asking questions in class
- Responding to questions that I ask in class
- Coming to office hours with questions about the material

COURSE GRADE

Once your raw score has been calculated at the end of the semester it will be rounded to the nearest percent and you will be assigned a letter grade corresponding to the range in which your score falls, as indicated below.

RAW PERCENTAGE	GRADE LETTER
90% -- 100%	A
80% -- 89%	B
70% -- 79%	C
60% -- 69%	D
0% -- 59%	F

POLICIES

USE OF CALCULATORS

According to Math/CS Department policy, the TI-83/84 graphing calculator is required for this course. However, for the vast majority of problems, no calculator is necessary. In fact, reliance on the calculator may result in a poorer understanding of the concepts and methods of Calculus. We will use calculators in this course mainly for routine arithmetic, graphing functions, and certain numerical algorithms such as Newton's Method. You may use a

calculator on any homework, quiz, test, and the final exam. If your calculator is not the TI-83/84, you must clear it with me in the first week of classes.

MISSING WORK

- **Homework:** No extensions will be granted for missed or incomplete homework assignments. However, at some point during the last week of classes, I will re-open all homework assignments for students to practice for the final exam and improve their homework scores.
- **Quizzes or Tests:** No make-up work will be allowed unless there is an excused absence. Depending on the circumstances, I may choose to drop missing grades or substitute with the final exam grade.
- **Final Exam:** Missing the final exam without prior notice results in a grade of F for the course.

FURTHER INFORMATION

LECTURE VS. RECITATION

The class schedule will typically follow the pattern of **lecture**-**lecture**-**recitation**. On lecture days, we will cover a single section of the textbook and talk about some examples while also emphasizing the concepts and theory of Calculus. For each lecture, there may be a handout that helps you to follow along with the material. On recitation days, I will answer questions about the material we have covered in lecture and also provide more examples to illustrate the concepts, as time permits.

BLAZEVIEW

All students should have access to the **BlazeView** website for this course. We will use BlazeView for:

- Course Information, including this syllabus
- Class-wide announcements
- Record of grades on tests (homework and quiz grades are recorded in MyMathLab)
- Copies of any handouts and review sheets given in class
- Solutions to tests (after they are graded and returned)
- Useful web links related to topics discussed in class

REQUESTING ACCOMMODATIONS

Students requesting classroom accommodations or modifications (such as extra time on tests or a distraction-free environment, etc.) due to a documented disability must contact the Access Office for Students with Disabilities located in Farber Hall. The phone numbers are 245-2498 (V/VP) and 219-1348 (TTY). More information can be found at **www.valdosta.edu/access**.

STUDENT SUCCESS CENTER

The Student Success Center (SSC) provides free peer tutoring for all VSU students in core courses. The SSC also offers time management and study skills workshops. The SSC is located in Langdale Hall. Call 333-7570 to make an appointment or visit the website, **www.valdosta.edu/ssc**.

ACADEMIC DISHONESTY

Copying the work of others or allowing a situation in which copying can occur will result in a **zero** for the exam on which cheating occurred, as well as a Report of Academic Dishonesty being sent to the Student Conduct Office in the Dean of Students Office. Further evidence of cheating will result in an **F** for the course as well as additional sanctions imposed by the University. All in-class tests will be given in multiple versions to reduce the temptation of copying.

COURSE CONTENT AND SCHEDULE

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
1/7: Introduction	1/8: 1.1	1/9: 1.2	1/10: Recitation
1/14: 1.3	1/15: 1.4	1/16: Recitation	1/17: 1.5
1/21: **No Classes**	1/22: 1.6	1/23: Review Day	1/24: **CH. 1 TEST**
1/28: 2.1	1/29: 2.2	1/30: Recitation	1/31: 2.3
2/4: 2.4	2/5: Recitation	2/6: 2.5	2/7: 2.6
2/11: Review Day	2/12: **CH. 2 TEST**	2/13: 3.1	2/14: 3.2
2/18: Recitation	2/19: 3.3	2/20: 3.4	2/21: Recitation
2/25: 3.5	2/26: 3.6	2/27: Recitation	2/28: 3.7
3/4: 3.8	3/5: Recitation	3/6: 3.9	3/7: 3.10
3/11: Recitation	3/12: 3.11	3/13: Review Day	3/14: **CH. 3 TEST**
3/18: **No Classes**	3/19: **No Classes**	3/20: **No Classes**	3/21: **No Classes**
3/25: 4.1	3/26: 4.3	3/27: Recitation	3/28: 4.4
4/1: 4.5	4/2: Recitation	4/3: 4.6	4/4: Recitation
4/8: 4.7	4/9: 4.8	4/10: Review Day	4/11: **CH. 4 TEST**
4/15: 5.1	4/16: 5.2	4/17: Recitation	4/18: 5.3
4/22: 5.4	4/23: Recitation	4/24: 5.5	4/25: 5.6
4/29: Review Day			

HAVE A GREAT SEMESTER!