## **Marshall University course Syllabus**

# **Important Notice:**

- Course begins on MUOnline & MyMathLab on May 18 and ends on August 07. Just 12 weeks.
- All <u>exams (except Pre-Exams)</u> will be <u>proctored</u> by a third party online proctoring company called "Respondus" (via a <u>webcam on your own computer</u>) or in person <u>by the instructor in a campus computer lab</u>. Details later in the syllabus. Another option for students is to arrange (at their own cost) to take the exams at a place like a "Sylvan Center" in their area. Must obtain the instructor's permission for this.
- Students will do homework on MyMathLab. Students will buy a special version of the textbook (details below) that comes with an access code to MyMathLab (use the course code: aluthge97776). Students will take exams on Blackboard (MUOnline) via Respondus. More details below.

Course Title/Number	MTH 140 – Applied Calculus – Sec 401– CRN 4269 – (3 credits)		
Semester/Year	Summer I 2015		
Days/Time	Online class. No face-to-face meetings		
Location	On the WEB at www.marshall.edu/muonline & www.mymathlab.com		
Instructor	Dr. Ari Aluthge (Pronounced: A-luth-gay)		
Office	Morrow Library, Room 109		
Phone	(304) 696 3050		
E-Mail	aluthge@marshall.edu (include your name and "MTH 140 – Online" in the subject line)		
	Prefer to communicate on MUOnline (Blackboard) with the "Internal Mail" tool.		
Office/Hours	Office hours by appointment only. No scheduled office hours.		
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to <a href="https://www.marshall.edu/academic-affairs">www.marshall.edu/academic-affairs</a> and clicking on "Marshall University Policies." Or, you can access the policies directly by going to <a href="https://www.marshall.edu/academic-affairs/?page_id=802">http://www.marshall.edu/academic-affairs/?page_id=802</a>		
	Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment		

<u>Course Description From Catalog</u>: A brief survey of calculus including both differentiation and integration with applications. Not to be substituted for Mathematics 229. PR: ACT Math 24 or MTH127 or MTH130. 3 hours

## Course Objectives:

- This course is intended for certain science and technology majors who wish to learn the rudiments of calculus.
- Theory is minimized and applications are emphasized.

Course Contents: Most of Chapters R through 4 and Sections 5.6 -5.7 & 6.1 - 6.2

- Review of Algebra
- Limits and Differentiation
- Applications of differentiation
- Exponential and logarithmic functions
- Integration and applications
- Functions of several variables (Partial Derivatives)

<u>Learner Outcomes</u>: The table below shows the following relationships: How each student learning outcomes will be practiced and assessed in the course. Upon completion of this course, students will have an understanding of the concepts of trigonometric functions and their properties. They will be able to apply these concepts to solve real world applications. In particular,

Course Student Learning Outcomes	How students will practice each	How student achievement of each outcome	
	outcome in this Course	will be assessed in this Course	
Students will employ quantitative and	By reading and studying the textbook,	Weekly homework assignments, unit exams.	
analytical methods to solve problems	lecture notes, PowerPoints		
drawn from basic algebra and	presentations, watching and studying		
geometry.	the Video clips available on MUonline.		
Students will verbally explain the	By reading and studying the textbook,	Weekly homework assignments, unit exams.	
meaning of limits, derivatives, and	lecture notes, PowerPoints		
integrals in their own words and in the	presentations, watching and studying		
context of specific problems.	the Video clips available on MUonline.		
Students will evaluate limits,	By reading and studying the textbook,	Weekly homework assignments, unit exams,	
derivatives, and integrals of algebraic,	lecture notes, PowerPoints	and the comprehensive final exam.	
exponential, and logarithmic functions	presentations, watching and studying		
numerically, graphically, and	the Video clips available on MUonline.		
symbolically.			
Students will apply the techniques of	By reading and studying the textbook,	Weekly homework assignments, unit exams.	
calculus to answer questions about the	lecture notes, PowerPoints		
analytic geometry of functions,	presentations, watching and studying		
including tangent lines, local extrema,	the Video clips available on MUonline.		
and absolute extrema.			
Students will interpret symbolic and	By reading and studying the textbook,	Weekly homework assignments, unit exams.	
numerical results in real-world terms,	lecture notes, PowerPoints		
and analyze the validity of their results	presentations, watching and studying		
in a real-world setting.	the Video clips available on MUonline.		
Students will apply techniques of	By reading and studying the textbook,	Weekly homework assignments, unit exams.	
calculus to solve applied problems from	lecture notes, PowerPoints		
fields such as engineering and the	presentations, watching and studying		
sciences.	the Video clips available on MUonline.		

## **Required Texts, Additional Reading, and Other Materials:**

- A special three-hole- punched, loose-leaf version of the textbook, *Calculus and Its Applications*, 10<sup>th</sup> Edition (by Bittinger) that comes with an access code to MyMathLab\* at www.mymathlab.com or (http://www.pearsonmylabandmastering.com/northamerica/).
- ISBN: **9780321772060**. More details about MyMathLab® later in the syllabus.
- The book can be ordered online at <a href="The Marshall University Bookstore">The Marshall University Bookstore</a> or directly from Pearson publishing at <a href="https://www.pearsonhighered.com">www.pearsonhighered.com</a>. (At MU Bookstore, the book costs about \$148 and it costs about \$150 from the publisher according to respective websites).
- Students will use the course code: aluthqe97776 and register on MML to do their homework.
- <u>Caution</u>: Please do not buy used books or any other version of the book without MML access code. The MML access code alone can cost over \$100.
- <u>Caution</u>: Face-to-face MTH 140 classes on campus use a different textbook. Make sure to buy the correct textbook (with MML access code).
- <u>Recommended</u>: A graphing calculator (will be allowed during tests and homework).
   <u>Cell phones or any other electronic devices will not be allowed in place of a calculator.</u>
- There is a page containing links to several online guides (on calculators). See the "Online Calculator guides" icon on the home page of the course.
- There is also a page containing some links for online resources. See the "Online Resources" link on the home page of the course.

#### **Course Requirements / Due Dates:**

- 1. Course is divided into three units as follows. Each unit is four weeks long.
  - Unit 1 = Chapters R and 1. This unit ends on Sunday, June 14 (11:59 PM)
  - Unit 2 = Chapters 2 and 3. Skip section 3.6. This unit ends on Sunday, July 12 (11:59 PM)
  - Unit 3 = Chapters 4, 5, and 6. Skip sec 4.6-4.4, 5.1-5.5, 6.3-6.6. Unit 3 ends on Fiday, August 7 (11:59 PM)
- 2. There is a homework assignment on MyMathLab at the end of each section of the textbook. So, in total there are 35 HWs. This means, on average, students must complete three HWs per week. The homework deadlines are posted online in the "Semester Schedule" on the homepage of the course. There's an Orientation HW on MML to help student learn how to enter answers including graphs. Counts for grade. Different HWs have different values ranging from 5 points to 6.5 points. Most HWs are NOT multiple-choice.

Different HWs have different values ranging from 5 points to 6.5 points. Most HWs are NOT multiple-choice. Each HW will have some "media items" such as "video clips" and "PowerPoints". Students must first view those media items before they can answer the real questions. Students will earn points for Media Items.

- 3. There is a Practice Exam (syllabus quiz) which contains 10 non-math questions about the course. So students must read the syllabus before taking the Practice Exam. Actually, the primary goal of the Practice Exam is to help students become familiar with the test taking process using Respondus and a webcam at home. So the practice exam should be taken on your own computer using Respondus and a webcam.
- 4. All exams are found in the "Quizzes and Exams" folder on the left column of the homepage of the course.
- 5. At the end of <u>each unit</u>, there are <u>two exams</u>. They are called Pre-Exam 1 and (real) Exam 1 (after Unit 1), etc. For each unit, the Pre-Exam and the (real) Exam are similar (made from the same pool of questions). The purpose of the Pre-Exam is to help students prepare for the (real) Exam. They <u>both count</u> for the grade. Both Pre-Exam and the (real) Exam ARE multiple-choice. Each contains 21 questions from that unit.
- 6. Students will take each Pre-Exam on their own computer, directly on Blackboard, <u>without going through</u>
  Respondus (no proctoring here). After taking each Pre-Exam, students can print a copy of the exam and study (correct their mistakes) to prepare for the (real) Exam.
- 7. To print any Pre-Exam (after the student has taken and "submitted" it), go to "My Grades", click on the particular Pre-Exam, and then click on the grade (score) for that exam. It will open the Pre-Exam student took.
- 8. But students must go through Respondus Lockdown Browser to take each (real) Exam.
  - At home, students can download Respondus Lockdown Browser. Students will also need a webcam.

    Details are given in a separate file on the home page under the title "Taking Exams at Home (Proctored)"
  - But students can also come to campus and take each (real) Exam in a computer lab where the instructor will proctor the exam. One three-hour period will be available for each exam. Details are given in a separate file on the homepage under the title "Taking Exams on Campus (Proctored)".
  - Another option for students is to arrange (at their own cost) to take the exams at a place like a "Sylvan Center" in their area. Must obtain the instructor's permission for this.
  - Deadlines for Pre-Exams and (real) Exams are given in the "Semester Schedule" file.
  - 9. There will be NO comprehensive final exam. Exam 3 is the last exam of the class. Class ends August 7.

# **Grading Policy:**

- Homework assignments (including Orientation HW) are worth 205 points.
   On MML, HW scores will range from 50 to 65 points. But those scores will be divided by 10 before copying to Blackboard. So on Blackboard, HW grades will range from 5 to 6.5 points. Orientation HW = 1.3 points.
- 2. For each unit, Pre-Exam = 21 points (1 pt for each question) and (real) Exam = 84 points (4 pts for each question). Total for two exams for each unit = 105 points. Total for all exams for three units = 315 points.
- 3. The Practice Exam (Syllabus quiz) = 5 points (0.5 point for each question).
- 4. Total possible points = 525 (205 + 5 + 315)
- 5. Letter grades: A = 450 525, B = 400 449, C = 350 399, D = 300 349, F = 0 299

**Attendance Policy**: There's NO attendance requirement for this class. This is a 100% online class. Students will learn material on their own. But if students have any questions, they must contact the instructor for help.

#### **Technical Requirements:**

For minimum hardware/software requirements please see:

http://www.marshall.edu/muonline/computer\_requirements.asp

Be sure to run the free web browser tune-up:

http://www.marshall.edu/muonline/hardwaresoftwarecheck.asp

You will need to have several plug-ins (software) installed on your computer. These plug-ins are all free. You will need **Real Player** and **Flash Player** to experience the streaming video and audio clips that are part of the course. You can easily check your computer to see if you have these programs (and if you don't install them for free), by clicking on this link: <a href="http://www.marshall.edu/muonline/computer requirements.asp">http://www.marshall.edu/muonline/computer requirements.asp</a>

If you have technical problems, please go to the Help Desk: http://www.marshall.edu/ucs/cs/helpdesk/

FAQ - Frequently Asked Questions

http://www.marshall.edu/muonline/technicalfaq.asp

Students will need a <u>webcam</u> for their computer if they decide to take the tests on their own computer. (But they can come to campus and take the test on a campus computer in a computer lab). Students will need to download Respondus Lockdown Browser.

#### Marshall University Computer HELP DESK PHONE NUMBERS:

(304) 696-3200 (Huntington, WV), (304) 746-1969 (Charleston, WV), (877) 689-8638 (Toll free)

## Some Helpful Hints:

- For each section, I have included the following in separate files in this order:
  - Detailed lecture notes with hundreds of worked out problems.
  - A PowerPoint presentation.
  - A page containing a video link or playlist (for most sections)
     (If you have difficulty with videos, please contact me)
  - Solutions to exercise problems #3, 7, 11, etc.
  - PowerPoint presentations and videos are also available on MyMathLab and students are required to view these media as a part of their homework.

## I suggest the following approach:

- Read the syllabus and take the syllabus quiz on Blackboard (counts for the grade)
  - The course is divided in to three units. Each unit consists of several chapters.
  - Begin reading the text for each section of the textbook.
- Next read my lecture notes including worked out examples.
- Then view the PowerPoint presentation.
- Next go and view the video (if there is a video for that section)
- Do the HW on MML (<a href="http://www.pearsonmylabandmastering.com/northamerica/">http://www.pearsonmylabandmastering.com/northamerica/</a>. Course code: aluthge97776
- If you need to study more, check the online resources page from the home page.
- Take the "MTH 140 Practice Exam (Syl Quiz)" to become familiar with test taking process before taking Pre-Exam 1
- At the end of each unit, take the unit exam on Blackboard (proctored by via a webcam). But students can also take the exam by coming to a campus computer lab. Details below.
- There's NO comprehensive final exam for this class. Exam 3 is the last exam. Class ends August 7.

## Getting Help From The Instructor:

- If you need help, please do not hesitate to contact me.
- It is my job to help my students. But you have to ask, if you need help.
- Contact me through "Internal Mail", or at <u>aluthqe@marshall.edu</u> or (304) 696 3050.

### MyMathLab Instructions

#### To register for Summer 2015 - MTH 140 - Section 401 (Aluthge) on :

- 1. Go to www.pearsonmylabandmastering.com
- 2. Under Register, click Student.
- 3. Enter your instructor's course ID: aluthge97776, and click Continue.

Please understand that there are so many math courses registered under my name "aluthge" on MyMathLab. So be careful and make sure to enter the correct course code aluthge97776 and register for the correct course.

- 4. Sign in with an existing Pearson account or create an account:
  - If you have used a Pearson website (for example, MyMathLab, or MyPsychLab), enter your Pearson username and password. Click **Sign in**.
  - If you do not have a Pearson account, click **Create**. Write down your new Pearson username and password to help you remember them.
- 5. Select an option to access your instructor's online course:
  - Use the access code that came with your textbook or that you purchased separately from the bookstore.
  - If not, buy access using a credit card or PayPal. Actually, just the MML access code <u>may be</u> sufficient. Once you are on MML, you have access to Textbook pages, Videos, and PowerPoints. <u>You are supposed to view those media as a part of each homework</u>. Those things and detailed lecture notes are provided on MUonline also.
  - If available, get 14 days of temporary access (Look for a link near the bottom of the page).
- 6. Click **Go To Your Course** on the Confirmation page. Under MyLab & Mastering New Design on the left, click **Summer 2015 MTH 140 Section 401 (Aluthge)** to start your work.

#### Retaking or continuing a course?

If you are retaking this course or enrolling in another course with the same book, be sure to use your existing Pearson username and password. You will not need to pay again.

#### To sign in later:

- 1. Go to www.pearsonmylabandmastering.com
- 2. Click Sign in.
- 3. Enter your Pearson account username and password. Click Sign in.
- Under MyLab & Mastering New Design on the left, click
   Summer 2015 MTH 140 Section 401 (Aluthge) to start your work.
- 5. Do the Orientation HW: Please do this first to learn how to enter your answers including graphs.

#### **Additional Information:**

See **Students** > **Get Started** on the website for detailed instructions on registering with an access code, credit card, PayPal, or temporary access.

## Notes:

- Students will have unlimited time and unlimited number of attempts on each HW (as long as they finish the HW by the deadline and before it is closed).
- HWs are due on <u>most</u> Sundays at 11:59 PM. But there is a "late due" period that is usually till 11:59 PM on the following Sunday.
- BUT this summer, I am leaving HW open for the entire four-week period for each unit. The penalty below will apply only during the last week of each unit. See the "semester schedule" for more details.
- During the penalty period, the point value students can earn will decrease by 3% per day. This applies only for the questions student attempt after the original due date.

### Using LockDown Browser and a webcam (Respondus Monitor) for Online Exams:

- This course requires the use of LockDown Browser for taking online exams.
- The computer used for taking exams must also have a built-in or external webcam.
- The LockDown Browser software prevents a user from accessing other applications or going to other websites during an exam.
- The webcam (sometimes called Respondus Monitor) records you during the exam to ensure you're only using resources that are permitted.
- Together, these tools make it possible for students to take online exams from any location, and at times that are convenient.
- It also creates a fair testing environment for everyone in the course.
- Watch the following video for more information: Overview for Students (video)
- You will need to download and install LockDown Browser to your computer and use it to take tests (instead of using your normal browser.) The download URL is:
   <a href="http://www.respondus.com/lockdown/installinfo.pl?ID=323615594">http://www.respondus.com/lockdown/installinfo.pl?ID=323615594</a>
   See the video under "Additional Resources" below for instructions for downloading.
- <u>Caution</u>: Don't download a copy of LockDown Browser from elsewhere on the Internet; those versions won't work for Marshall University.
- Review this list before taking an exam with LockDown Browser and Respondus Monitor:
  - Ensure you are in a location where you won't be interrupted
  - Turn off all mobile devices, phones, etc.
  - Clear your desk of all external materials books, papers, other computers, or devices
  - No one else should be in the room with you
  - Remain at your desk or workstation for the duration of the test
  - Start LockDown Browser. Select the first option "Blackboard Learn Production" from the dropdown menu. It will take you to Blackboard (MUonline) page. Log onto MUonline. Then select this course and the exam you are taking. Click "BEGIN". Then select the first option (Taking the exam using a webcam). Then follow the instructions. The second option is if you are taking the exam in a lab.
  - If an interruption occurs during the exam, briefly explain what happened by speaking directly to your webcam
  - You cannot exit the exam until all questions are completed and submitted for grading.
  - Practice Exam (Syllabus Quiz):

Please take the "MTH 140 Practice Exam (syllabus quiz)" to become familiar with test taking process before taking Pre-Exam 1 and Exam 1. It contains 10 questions about the course from the syllabus.

#### Additional Resources:

- (pdf) Student Quick Start Guides
- (video) How to Download & Use LockDown Browser

#### Campus Computer Lab Schedule For Exams:

If a student wants to take a test in a campus lab, he/she can do by coming to a campus computer lab.. See below for the schedule for each exam. Since the exam is 2.5 hours long, please come early so that you will have enough time to finish the exam. Bring your ID, textbook, and calculator. Please let me know in advance if you want to take the exam in a lab in any of these days. Most students take exams at home.

Exam	Lab	Date	Time
Exam 1	Smith 532	Friday, June 12	12PM – 3Pm
Exam 2	Smith 532	Friday, July 10	12PM – 3Pm
Exam 3	Smith 532	Friday, August 7 (last day)	12PM - 3Pm

#### Notes:

- Pre-Exams are taken at home without Respondus, directly on Blackboard, no proctoring involved.
- There's no comprehensive final exam for this class. Exam 3 is the last exam for this class.

**Note:** Another option for students is to arrange (at their own cost) to take the exams at a place like a "Sylvan Center" in their area. Students must obtain the instructor's permission for this. In this event, the instructor will contact the proctoring center and mail the paper exams to be proctored there.

••	ner Semester Schedule	•	ab and Exams on Blackboard	
Homework or Exam	Open at 12:00 AM on	<u>Due</u> : by 11:59 PM on Earn 100% of possible points on HW	Close (late due HW) at 11:59 PM on HW: 496 a day penalty during this period.	
Orientation HW	Important! Do this to learn l	now to enter your answers including graphs.		
Practice Exam		Exam to become familiar with test taking pro		
& Syllabus quiz	Contains five questions related to the syllabus and five questions from Cha R & 1. Counts for grade. Always open.			
		Unit 1 (Chapters R & 1) work starts here.		
HW R.1	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW R.2	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW R.3	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW R.4	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW R.5	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW R.6	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.1	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.2	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.3	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.4	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.5	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.6	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.7	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
HW 1.8	Saturday, May 16, 2015	Sunday, June 7, 2015	Sunday, June 14, 2015	
Pre Exam 1	Saturday, May 18, 2015		lackboard, NO Respondus. Counts for grade	
Exam 1	Saturday, May 18, 2015	June 14, 11:59 PM- No late due option		
		ork ends here. And Unit 2 (Chapters 2 & 3)		
HW 2.1	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 2.2	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 2.3	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 2.4	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 2.5	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 2.6	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 2.7	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 3.1	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 3.2	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 3.3	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 3.4	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
HW 3.5	Saturday, June 6, 2015	Sunday, July 5, 2015	Sunday, July 12, 2015	
Pre Exam 2	Saturday, June 15, 2015		ackboard, NO Respondus. Counts for grade	
Exam 2	Saturday, June 15, 2014	Friday, July 11, 2014 (4:00PM) - No late due date or penalty date.		
		here. And Unit 3 (Cha 4, Sec 5.6, 5.7, 6.1		
HW 4.1	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 4.2	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 4.3	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 4.4	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 4.5	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 5.6	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 5.7	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 6.1	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
HW 6.2	Saturday, July 4, 2015	Sunday, August 2, 2015	Friday, August 7, 2015	
Pre Exam 3	Saturday, July 13, 2015		Blackboard, NO Respondus. Counts for grade	
Fre Exam 3				

Please print and post this schedule nearyour desk or download it to your smart phone or tablet or laptop or desktop.