MTH 140: Applied Calculus
Fall 2015

Course Title/Number	**MTH 140: Applied Calculus; Section 104; CRN 3061**
Semester/Year	Fall 2015
Days/Time	MW 6:30 –7:45pm
Location	Smith Hall 509
Instructor	Dr. Michael Otunuga
Office	WAEC 3229 (Engineering Building)
Phone	304-696 3049
Textbook	Biocalculus by Stewart 1st edition ISBN: 9781133109631
Calculator	TI-83 or similar
E-Mail	otunuga@marshall.edu
Free Tutoring	Free Tutoring in Smith Music Hall 115 and Smith Hall 620 Monday to Friday
Office/Hours	MW 2-3pm, 4-5pm. Others by appointment. To make an appointment, email in advance when possible.
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 www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 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

Course Description: From Catalog

A brief but careful review of the main techniques of Functions and Sequences, Limits, Derivatives, integrals and its Applications, differential equations.

Course Content

Course Content	➢ Functions and Sequences ➢ Limits ➢ Derivatives and its Applications ➢ Integrals and its Applications ➢ Differential Equation

How each student learning outcome will be practiced and assessed in the course

MTH 229 Student Learning Outcomes	How students will practice each outcome	How student achievement of each outcome will be assessed
Students will be able to identify and graph standard algebraic functions.	Students will complete homework, classwork, and	Students' understanding of functions will be evaluated through questions on 3 in-class tests, 1

	quizzes to get practice and feedback.	project and comprehensive final exam.
Students will be proficient at finding limits, derivatives and integrals of functions. Students will understand the concept of functions and their applications.	Students will complete homework, classwork, and quizzes to get Practice and feedback.	Students will be assessed on solving equations through questions on 3 in-class tests, 1 project and comprehensive final exam.
Students will be able to develop mathematical model to solve real world problem, select a function to model a physical example and apply calculus techniques to make Predictions	Student will complete assigned mathematical projects.	Students will be assessed on their modeling skills on 1 take home project.
Students will be able to analyze real world problems in sciences, interpret symbolic and numerical result and recognize when a result is invalid in the real world.	Students will complete homework, classwork, and quizzes to get Practice on modeling questions.	Students will be assessed on Model analysis, derivation and verification through questions on 1 project.

Course Requirement

Attendance: Attendance is required. ***Unexcused absences for more than two weeks will result in a reduction of one letter grade for the semester; unexcused absences from twelve or more classes will result in an F***. You will not be allowed to take makeup quizzes or exams, homework, etc. unless you have a university excuse. If an excused absence results in missing quiz/exam/hw, then a make-up date (*within one week of absence*) must be scheduled with course instructor. **Coming late to class, and use of cell phone** will be counted as an unexcused absence. Consult your handbook regarding university excused absences.

Homework: Homework will be assigned weekly on Friday and collected on Monday before class. Late homework assignments are not accepted, except in extenuating circumstances or University-approved absences. Copies of Homework are listed on the last page.

Quizzes: There will be a brief quiz during class meetings on Wednesday. Make-up quizzes are only given in the event of a university-excused absence.

Projects: Projects will be given to students. Students are to work in group and present their work as a presentation during dead week. **For past project questions, visit my website at** http://science.marshall.edu/otunuga/ and click **project for MTH 229.**

Tests: There will be 3 in-class tests during the semester, 1 project and a comprehensive Final Exam. **For past exam questions, visit my website at** http://science.marshall.edu/otunuga/ **and click old exam**. If you know in advance that you will have an excused absence on a test date, please make arrangements to take the test early. Make-up exams will only be given in the event of a university-excused absence.

Final Exam: The final exam will be on **Monday Dec. 7, 2015 from 6:30-8:30pm**. Please make travel arrangements accordingly. Make-up/early tests will not be available to accommodate individual travel plans.

Grading Policy

Attendance	25pts
Quizzes	75pts
Homework	50pts
Three major exams	300pts
Project	100pts
Final (comprehensive) exam	150pts

The grading scale is rigid.

90.00 – 100	A
80.00 – 89.99	B
70.00 – 79.99	C
60.00 – 69.99	D
Below 60.00	F

TENTATIVE COURSE SCHEDULE (may change according to class pace)

Week (Mon - Fri)	Section Coverage	Activities
Week 1 (8/24-8/28)	**1.1, 1.2, 1.3**	
Week 2 (8/31-9/4)	**1.4, 1.5**	
Week 3 (9/7-9/11)	**1.6 (sequences), 2.1**	
Week 4 (9/14-9/18)	**2.2, 2.3, 2.4**	
Week 5 (9/21-9/25)	**2.5, Review**	**Test 1**
Week 6 (9/28-10/2)	**3.1, 3.2**	
Week 7 (10/5-10/9)	**3.3, 3.4, 3.5**	
Week 8 (10/12-10/16)	**3.6, 3.7 (logs only, no trig)**	
Week 9 (10/19-10/23)	**3.8(tangent, no Taylor), Review**	**Test 2**
Week 10 (10/26-10/30)	**4.1, 4.2, 4.3**	
Week 11 (11/2-11/6)	**4.4, 5.1**	
Week 12 (11/9-11/13)	**5.2, 5.3, 5.4**	
Week 13 (11/16-11/20)	**5.7, 5.8 (if time permits)**	**Test 3**
Week 14 (11/23-11/27)	**Thanksgiving break;**	**Project Assigned.**
Week 15 (11/30-12/4)	**6.1, 6.2, 6.3, 6.4**	
Week 16 (12/7-12/11)	**Exam Week**	**Final Exam: Monday 12/7, 6:30-8:30pm**