### Marshall University MTH 230 Sec 501 Syllabus

Course Title	Calculus with Analytic Geometry II	
Course Number	MTH 230- Section 501- CRN 5081	
Semester/Year	Summer II 2018	
Days/Time	MTWRF 10:00-12:20pm	
Location	SH 516	
Instructor	Dr. Michael Otunuga ( <u>http://science.marshall.edu/otunuga/</u> )	
Office	WAEC 3229	
Office Hours	MTWRF 9-10am; 12:30pm-1:30pm; others by appointment.	
	To make an appointment, email in advance when possible.	
Phone	304 696-3049	
E-Mail	otunuga@marshall.edu	
Textbook	Calculus, Early Transcendental by Stewart, 8th edition	
Course Description	A careful review of the main techniques of integrations and its applications, infinite	
	series, polar coordinates and Parametric Equations.	
Sections Covered	6.1-6.5; 7.1-7.5, 7.7, 7.8; 8.1-8.2; 10.1-1.4; 11.1-11.10	
Prerequisites	MTH 229 or MTH 229H with "C" or higher or IST 230	
Calculator	TI-83 or higher, graphing calculators may not be allowed for some problems in exam	
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 <u>www.marshall.edu/academic-affairs</u> and clicking on "Marshall University Policies." Or, you can access the policies directly by going to <u>http://www.marshall.edu/academic-affairs/?page_id=802</u> 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 See the <u>University Academic Calendar</u> ( <u>http://www.marshall.edu/calendar/academic/</u> ) for course withdrawal dates.	
Disable Students	Policy for Students with Disabilities: Marshall University is committed to equal opportunity education for all students, including those with physical, learning and psychological disabilities. University policy states that it is the responsibility of students with disabilities to contact the Office of Disability Services (ODS) in Prichard Hall 117 (304.696.2467) to provide documentation of their disability. Following this, the ODS Coordinator will send a letter to each of the student's instructors outlining the academic accommodation he/she will need to ensure equality in classroom experience, outside assignment, testing, and grading. The instructor and student will meet to discuss how the accommodation(s) requested will be provided. For more information, access the website for the Office of Disabled Student Services: <a href="http://www.marshall.edu/disabled">http://www.marshall.edu/disabled</a>	

## Course Goals:

Course Goals:	<ol> <li>An understanding of fundamental concepts of calculus and an appreciation of its applications</li> </ol>
	<ol> <li>Developing critical thinking skills by applying calculus skills to real world problems</li> </ol>
	<ol> <li>Obtaining an understanding of the theory in science and engineering mathematics</li> </ol>
	4. Being able use technology to help solve problems.
	<ol> <li>Satisfying program requirements for mathematics, science, and engineering majors</li> </ol>

### **Course Contents**

Chapter 6	Creating applications of integrals: Area and Volumes of Revolutions
Chapter 7	Different Method/techniques of Integrations
Chapter 8	Further Application of Integrals
Chapter 10	Parametric Equations and Polar Coordinates
Chapter 11	Infinite Sequences and Series

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

MTH 230 Student Learning Outcomes	How students will practice each outcome in MTH 230	How student achievement of each outcome will be assessed in MTH 230
Students will be able to identify definite and indefinite integrals and how to evaluate it	Students will complete homework, classwork, and quizzes to get practice and feedback.	Students' understanding of functions will be evaluated through questions on 3 in- class tests and the comprehensive final exam.
Students will be able to calculate definite and indefinite integrals and interpret them as limits of sample sums 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 brief, low- stakes writing assignments as part of daily classwork and quizzes. Students will engage in peer review of written and oral explanations of concepts. Students will complete homework, classwork, and quizzes to get Practice and feedback.	Students will be assessed on written communication through questions on 3 in- class tests, 1 project and the comprehensive final exam. Students will be assessed on solving equations through questions on 3 in-class tests, and the comprehensive final exam.
Students will be able to apply integrals to solve real world problems.	Student will complete assigned mathematical projects on homework.	Students will be assessed on their modeling skills on 3 in- class tests

Students will be able to find infinite	Students will complete homework,	Students will be assessed on
series expansion of functions	classwork, and quizzes to get	Model analysis, derivation
	Practice on modeling questions.	and verification through
		questions on homework.
Student will be able to test for	Students will complete homework,	Students will be assessed on
convergence of infinite series	classwork, and quizzes to get	Model applications through
	Practice on modeling questions.	questions on Exams
Students will be able to solve	Students will complete projects,	Students' understanding of
differential equations, graph	homework and quizzes to get practice	applied calculus will be
parametric equations, interpret &	and feedback	evaluated through questions
solve problems leading to differential		on Exams.
equations		

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

<u>Attendance</u>: Attendance is compulsory for this class. Coming late to class (more than 5minutes) and leaving class early, playing with cell phone, sleeping in class will be counted as an unexcused absent. Unexcused absences from **5** classes will result in a reduction of one letter grade for the semester; unexcused absences from **6 or more** classes will result in an F

Homework: Homework will be assigned in class every Friday and due the following Monday.

<u>Quizzes</u>: There will be five (5) quizzes given every Wednesday.

<u>Exams</u>: There will be **3 in-class** tests during the semester on June 11, June 18 and June 25. Make-up exams will only be given in the event of a university-excused absence. Inform me on time.

<u>Final Exam</u>: The final exam will be on **Friday July 6, 2018 from 10:00-12:20pm**. Please make travel arrangements accordingly. Make-up/early tests will not be available to accommodate individual travel plans.

Grading Policy	Grad	ding	Po	icy
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Attendance	25 points	
Quizzes (5)	50 points	
Homework (4)	100 points	
Three major exams	300 points	
Final ( comprehensive ) exam	150 points	
Total	625 points	
The grading scale is rigid		
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90.00 - 100	A	
80.00 - 89.99	В	
70.00 – 79.99	C	
60.00 - 69.99	D	
Below 60.00	F	
The class grade will be based on the percentage of the 625 points		
All class grades will be posted on MUO	nline as soon as they are available	