

Marshall University Syllabus
MTH 300: Introduction to Higher Mathematics

Course Title/Number	MTH 300 (CRN: 5792) <i>Introduction to Higher Mathematics</i>
Semester/Year	Spring 2018
Days/Time	MTWR 1 - 1:50 PM
Location	HH 102
Instructor	Dr. Elizabeth Niese
Office	Smith Hall 714
Phone	(304) 696-3609
Email	niese@marshall.edu Please include your name and subject line MTH 220 in your email.
Office/Hours	Tuesdays 2 - 3 PM, Wednesdays 9 - 11 AM, Thursdays 11 AM - 12 PM, Fridays 1 - 2 PM, other times by appointment. To make an appointment, please email 24 hours 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 by going to http://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: A transition between elementary calculus and higher mathematics with emphasis on techniques of proof. PR: MTH 230. *4 credit hours.*

Course Student Learning Outcomes:	How students will practice each outcome:	How student achievement of each outcome will be assessed
Students will be able to write proofs of mathematical statements using appropriate techniques	Homework, in-class writing, and presentation	Exams and portfolio
Students will be able to read a complex mathematical argument and determine its validity	Homework, in-class writing, and presentation	Exams and portfolio
Students will be able to make and test conjectures about specific mathematical situations	Homework, in-class writing, and presentation	Exams and portfolio
Students will be able to make effective oral and written presentations of their completed work	Homework, in-class writing, and presentation	Exams and portfolio
Students will be able to perform complex mathematical reasoning independently	Homework, in-class writing, and presentation	Exams and portfolio

Required Course Materials:

- **Textbook:** *Mathematical Reasoning* by Ted Sundstrom
<https://www.tedsundstrom.com/mathreasoning>
- **Overleaf:** Overleaf is a free, online \LaTeX editor. Go to www.overleaf.com to create your free account.
- **MUOnline:** Assignments, announcements, and other course materials will be posted regularly on MUOnline.

Course Requirements:

- **Homework:** You will complete 2-4 written homework assignments writing/editing proofs and constructing counterexamples. The work submitted should reflect *your* understanding of the problem. Some assignments will be typed in \LaTeX , while others will be handwritten.
- **In-class writing/presentations:** There will be weekly in-class writing assignments and occasional oral presentations of your proofs/counterexamples.
- **Proof Portfolio:** Your final course assessment will be a proof portfolio written in \LaTeX consisting of some new and some revised proofs from throughout the semester. Further details will be given in class and posted on MUOnline.
- **Exams:** There will be two in-class exams. Make-up exams are only given in the event of a university-excused absence.

Grading Policy:

Your final course grade will be calculated as follows:

Homework	40%	$\geq 90\%$	A
In-class writing/presentations	10%	80% – 89%	B
Exams:	30% (15% per exam)	70% – 79%	C
Portfolio:	20%	60% – 69%	D
		< 60%	F

Attendance Policy:

Attendance at all scheduled class times is expected. Make-up tests will only be given in the event of an excused absence. If you know in advance that you will be absent, please make arrangements to take the test early if possible. If you are ill and cannot make it to class, it is courteous to send me an email notifying me. You are responsible for all material missed and should try to get a copy of a classmate's notes.

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: <http://www.marshall.edu/disabled>.