Marshall University
Syllabus
MTH 220

Course Title/Number	MTH 220 (CRN: 3066) *Discrete Structures*
Semester/Year	Fall 2015
Days/Time	TR 8 - 9:15 AM
Location	WAEC 3119
Instructor	Dr. Elizabeth Niese
Office	Smith Hall 721
Phone	(304) 696-3609
Email	niese@marshall.edu Please include your name and subject line MTH 220 in your email.
Office/Hours	**Mondays& Wednesdays 11:00 AM - 12:00 PM, Tuesdays & Thursdays 9:30 AM - 11:00 AM, Fridays by appointment only** 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 be 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: Discrete mathematics is the mathematics of finite sets. You will be introduced to logic, set theory, functions, algorithms, basic counting techniques, basic proof techniques, and elementary graph theory. Prerequisites: ACT Math 27 or MTH132 or MTH229 or IST131

Course Student Learning Outcomes:	**How students will practice each outcome:**	**How student achievement of each outcome will be assessed**
Students will be able to perform basic set-theoretic operations	Weekly problem sets, boardwork in class	Quizzes and a comprehensive final exam
Students will be able to translate English statements into logical statements	Weekly problem sets, boardwork in class	Quizzes and a comprehensive final exam
Students will be able to write simple proofs	Weekly problem sets, boardwork in class	Quizzes and a comprehensive final exam
Students will be able to solve basic counting problems using combinations and permutations	Weekly problem sets, boardwork in class	Quizzes and a comprehensive final exam
Students will be able to model problems using appropriate graphs	Weekly problem sets, boardwork in class	Quizzes and a comprehensive final exam

Required Course Materials:

- **Textbook:** *Applied Discrete Structures* by Doerr and Levasseur. Can be accessed at http://mupfc.marshall.edu/~niese/
- ***MUOnline:*** Assignments, announcements, and other course materials will be posted regularly on MUOnline.
- **Calculator:** You may use a standard scientific calculator or graphing calculator for this course. Any device that can access the internet or cell service is not permitted to be used as a calculator on any quiz or test.

Course Requirements:

- **Homework:** Homework will be assigned once or twice a week and will be posted on MUOnline. Late homework assignments are not accepted, except in extenuating circumstances or University-approved absences.
- **Quizzes:** There will be four 45-minute quizzes during the semester. If you know in advance that you will have an excused absence on a quiz date, please make arrangements to take the quiz early. *Tentative* quiz dates are: September 15, October 6, October 27, and November 17
- **Comprehensive Final Exam:** You will have a comprehensive final exam on: **Thursday, December 10 from 8:00 am - 10:00 am**

Grading Policy:
Your final course grade will be calculated as follows:

Homework:	40%
Quizzes:	40% (10% per quiz)
Comprehensive Final Exam:	20%

$> 90\%$	**A**
$80\% - 89\%$	**B**
$70\% - 79\%$	**C**
$60\% - 69\%$	**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.

Tentative Schedule:

Week 1:	Chapter 1
Week 2:	Chapter 1/2
Week 3:	Chapter 2
Week 4:	Quiz 1, Chapter 3
Week 5:	Chapter 3
Week 6:	Basic Proof
Week 7:	Quiz 2, Chapter 6
Week 8:	Chapter 5/6
Week 9:	Chapter 8
Week 10:	Quiz 3, Chapter 9
Week 11:	Chapter 9
Week 12:	Chapter 10
Week 13:	Quiz 4, Chapter 11
Week 14:	Chapter 11/13, Review