

**MTH 121-203: Concepts and Applications (CT)**  
Spring 2017

**Meeting Times:** MWF 12:00 p.m. – 12:50 p.m.

**Classroom:** SH 509

**Instructor:** Stacy Scudder

**Office:** SH 743F

**Phone:** 304-696-3035

**Email:** [scudder@marshall.edu](mailto:scudder@marshall.edu)

**Office Hours:** MWF 8:00 a.m. – 8:50 a.m.

MW 2:00 p.m. – 3:00 p.m.

F 11:00 a.m. – 11:50 a.m.

Other hours by appointment

**Instructor Contact  
& Feedback**

The best way to contact me is through email. I usually respond within a few hours, although this isn't always possible. You may call my office, but make sure you leave a message if I'm not available. The voicemail messages get emailed to me, so I may respond by either method – most likely through email.

I expect you to participate in class by joining the discussion, answering questions or asking questions. If you aren't comfortable asking questions in class, you can email me or drop by my office.

I will do my best to get work back to you within 2 classes of the due date.

**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 [www.marshall.edu/academic-affairs](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](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 critical thinking class for non-majors that develops quantitative reasoning skills. Topics include logical thinking, problem solving strategies, linear modeling, beginning statistics and probability, exponential and logarithmic modeling, formula use.  
PR: MTH 099, MTH 100, MTH 102, Math ACT 19 or better, Math SAT 460 or better.

**Textbook:** Using and Understanding Mathematics, 6th Edition by Bennett and Briggs. ISBN: 9780321914620

**Calculator** You will need a scientific calculator with [ $y^x$ ] or [ $^x$ ] or [ $x^\square$ ] , [ $e^x$ ] or [ $e^x$ ], and [LOG] and [LN] keys

### Course Student Learning Outcomes

| Students will...                                                        | How students will practice each outcome in this Course | How student achievement of each outcome will be assessed in this Course                                                                                                        |
|-------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use critical thinking skills to analyze problems                        | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• Homework</li><li>• Exam</li></ul>                                                                                                      |
| Convert between U.S. and metric units                                   | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• In-class worksheet</li><li>• Exam, daily quiz</li></ul>                                                                                |
| Convert formats of numbers, such as from decimal to scientific notation | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• In-class worksheet</li><li>• Exam, daily quiz</li></ul>                                                                                |
| Perform calculations involving percentages                              | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• In-class worksheet</li><li>• Exam, daily quiz</li></ul>                                                                                |
| Calculate interest for credit card and bank accounts                    | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• Credit card project</li><li>• Exam, daily quiz</li></ul>                                                                               |
| Analyze statistics and graphics used in the media                       | In class discussions, Homework                         | <ul style="list-style-type: none"><li>• Make pie charts and bar graphs</li><li>• Find examples of mistakes in media graphs</li><li>• Exam, daily quiz</li></ul>                |
| Perform calculations involving a data set                               | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• Perform statistical study in class</li><li>• Use Excel to perform calculation and create graphics</li><li>• Exam, daily quiz</li></ul> |
| Use the appropriate rules of probability to predict likely outcomes     | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• Use lottery odds to predict expected value of WV lottery</li><li>• Exam, daily quiz</li></ul>                                          |
| Use exponential functions to predict growth and decay                   | In-class discussions, Homework                         | <ul style="list-style-type: none"><li>• Exam, daily quiz</li></ul>                                                                                                             |

**MUOnline**

Although this isn't an online class, I will use MUonline to post material throughout the semester. Practice exams will be posted there at least one week prior to the exams. In-class worksheets will also be posted there the day they are done in class. I post the section(s) covered in class, any textbook homework, and any other relevant information in the calendar, so check there if you are absent. There will also be other resources (videos, links to websites, etc.) posted in the resources link.

I try to keep the grades up to date online when possible, but you're always welcome to come to my office for an update.

**Math Lab:**

There is a math lab located in SH 115 for anyone who needs more help in this, or any math class. You've already paid for this service in your regular tuition. I highly recommend you take full advantage of this service as much as possible, not just before exams.

**Cell Phones and Electronics:**

The classroom is a learning environment and students aren't able to learn while being distracted; therefore, all cell phones are to be turned off or set to vibrate off the desk. Texting is not permitted during class. If you are seen texting in class, you will be asked to leave. Furthermore, you are not allowed to have any electronic devices that I feel may distract you or other students from the material being presented (i.e. MP3 players, laptops, tablets, etc.). If you are found operating any of these devices in an inappropriate way, you will be asked to leave.

**Homework:**

I do not take up exercises assigned from the textbook; however, homework exercises may show up on quizzes or exams, so it is in your best interest to understand how to work them. We will go over a few homework problems you have questions about at the beginning of class. You may also ask me after class or during office hours about any problem.

**Quizzes:**

There will be daily open-note (not open book!) quizzes given during the first five minutes of class over topics covered in the previous class or homework. These quizzes are usually only worth 5 points each, but add up over time. If you're not in class when the quiz is given, you will not be allowed to make it up so please be on time for class.

**Exams:**

There will be at least four exams including the final. Exams must be taken at the scheduled times unless advance arrangements have been made with me or you have an excused absence. If you are absent the day of the exam, you have **one week from that date** to make arrangements to take a make-up exam. Failure to follow this policy will result in a zero for the exam.

**Late Policy:**

There is no make-up for the daily quizzes. Unless you make prior arrangements with me, there will be no make-up exams without an excused absence. No homework will be accepted late. If you're having problems, come see me and I'll be glad to help you with the homework.

**Grading Policy:**

Your final grade will be based on the total points possible for the class based on assignments, quizzes and exams. There will be some variation in the daily quiz score since I drop up to 3 of the lowest scores. To determine your score at any time during the semester:

- 1.) Add up all your points
- 2.) Add up the total possible points
- 3.) Divide your points by the total points and multiply it by 100

For example, suppose you have 250 points and there are 295 points possible.

$$250 / 295 = .8475 \times 100 = 84.75\%$$

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Daily Quizzes                         | 5 points each                                              |
| 4 Exams including Final Exam          | 100 points each                                            |
| Credit Card Project                   | 50 points                                                  |
| M&M Statistics                        | In Class Study – 25 points<br>Excel Statistics – 25 points |
| Worksheets – there will be at least 3 | 20 points each unless otherwise stated                     |
| Extra Credit                          | Up to 20 points                                            |

The percentage ranges and corresponding letter grades are as follows

A 90% -100%

B 80% - 89%

C 70% - 79%

D 60% - 69%

F 0% - 59%

I will try to keep the grades up to date on MUOnline, but you're always welcome to come to my office to see your current grade. I can't email grades, so please don't ask.

**Academic Honesty:**

Cheating is taken very seriously in this class. If you are caught cheating on a quiz, you will be issued ONE warning. After that, you will be asked to leave and will receive a failing grade for the class. There will be NO warnings if you're caught cheating on an exam. The first instance of confirmed cheating will result in a failure for the class, not just the exam.

**Attendance:**

Your success in this class is directly related to your own efforts. You will be more likely to succeed if you attend class each day and come prepared to contribute. Students are expected to attend and participate in each class; however, attendance will not be counted towards your final grade. Students must request permission to take a make-up exam prior to the exam and only for a very serious reason.

**Gear Upload:**

This is a CT course and requires an upload to Gear. You will be assigned a project to upload and instructions will be provided on the MUonline website and during class.

**Important Dates:**

January 16<sup>th</sup>, Monday  
Martin Luther King, Jr. Day – no classes

February 27<sup>th</sup>, Monday  
Deadline for Professors to Submit Freshmen/Sophomore Mid-Term Grades

March 17<sup>th</sup>, Friday  
Last Day to Drop a Full Semester Individual Course

March 19<sup>th</sup> – March 26<sup>th</sup>, Sunday - Sunday  
Spring Break

April 28<sup>th</sup>, Friday  
Last Class Day and Last Day to Completely Withdraw for Semester

FINAL EXAM  
Friday, May 5<sup>th</sup>, from 10:15 a.m. until 12:15 p.m.