**Marshall University MTH 160 (CT) Syllabus**

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| **Course Title/Number** | Applied Mathematical Reasoning (CT)  MTH 160 - Section 204 - CRN 5797 - Credits 5 |
| **Semester/Year** | Spring 2018 |
| **Days/Time** | **MW** 2:00pm - 2:50pm & **TR** 2:00pm - 3:15pm |
| **Location** | **SH 334** |
| **Instructor** | Kusum Subedi |
| **Office** | Smith Hall 743D |
| **Phone** | (304) 696-6081 |
| **E-Mail** | subedik@marshall.edu |
| **Office Hours** | **MW 12-2pm; TR 11:50-12:20pm;**  **MTWR 10:45-11:00am**  or by appointment |
| **Tutoring Services** | In addition to office hours, there are two free tutoring options for students in Math 160.  The math tutoring lab will be open this semester during the following hours: Smith Hall 625: **Monday - Thursday** 10:00am - 4:00pm & 5:00pm - 6:30pm  **Friday** 10:00am - 12:00pm [http://www.marshall.edu/math/tutoringlab.asp.](http://www.marshall.edu/math/tutoringlab.asp)  The University College offers appointment-based tutoring in the Communications Building. Please consult their web page for additional information. |
| **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 [www.marshall.edu/academic-affairs/policies/.](http://www.marshall.edu/academic-affairs/policies/)  Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Dismissal/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative  Action/Sexual Harassment |

# Course Description: From Catalog

A critical thinking course in applied mathematical reasoning. Topics include logic, problem solving, linear modeling, beginning statistics and probability, exponential and logarithmic modeling, formula use.

PR: SAT Mathematics (Before Mar. 16) 460, or ACT Math 19, or SAT MATH SECTION SCORE 500, or MTH099, or MTH102, or MTH102B

**Required Texts, Additional Reading, and Other Materials**

* Applied Mathematical Reasoning, second edition, published by Cengage (ISBN: 978-1-305-75805-6)
* You should bring your calculator, paper, and a pen or pencil to every class meeting.
* Students are required to have a scientific or graphing calculator during the course.
* Students will be required to use Excel and Word. Microsoft Mathematics is optional.
* You must have internet access at your residence. Check your official MU email account daily.

**MU Online:** It is important to visit MU Online regularly for up-to-date information about the course. It hosts all the course materials including announcements, handouts, assignments, and reading materials. Although I will make my best effort to announce everything in class, it is your responsibility to keep up to date with assignments on MU Online.

**Attendance Policy**

Students are expected to attend each class. The first 4 absences will not be counted. After that one point (out of 25)will be deducted per absence.. To obtain an excused absence, please go to the Dean of Students’ Office in the MSC. **Students must notify the instructor by phone or e-mail prior to an exam if they cannot take a scheduled exam.** Students must present a serious reason for missing any exam. Makeup exams will be given to students outside of class time at the convenience of the instructor.

# Course policies

Cheating or plagiarism is a serious oﬀense and will not be tolerated. It will be thoroughly investigated, and might lead to failure in the course or even to expulsion from the university. **If you are late to class,** if you leave class early, if you are disruptive, if you are sleeping, reading the newspaper, working on other homework, **surﬁng the internet** or for any other reason are not actively engaged in activities related to math class, **you will not receive credit for participating in class that day.** I expect that you will not only attend class, but that you will participate in class. If you do not respect yourself, other students, or the instructor during class, you may be asked to leave class.

**Objectives of Course: The table below shows the following relationships: How each student learning outcome will be practiced and assessed in the course.**

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| **Course student learning outcomes** | **How students will practice each outcome in this course** | **How student achievement of each outcome will be assessed**  **in this course** |
| **1: Integrative Thinking:** Students will **make connections** and **transfer** skills and learning among varied disciplines, domains of thinking,  experiences, and situations. | Discussions, group work, board work, low-stakes writing, homework, in-class exercises, and chapter reviews | Class Project |
| **2: Quantitative Thinking:** Students will analyze real‐world problems quantitatively, **formulate** plausible estimates, **assess** the validity of visual representations of quantitative information, and **differentiate** valid from questionable  statistical conclusions. | Discussions, group work, board work, low-stakes writing, homework, in-class exercises, and chapter reviews | In Class Exam based on Quizzes |
| **3: Inquiry Based Thinking:** Students will **formulate** focused questions and hypotheses, **evaluate** existing knowledge, **collect** and **analyze** data, and  **draw** justifiable conclusions. | Discussions, group work, board work, low-stakes writing, homework, in-class exercises, and chapter reviews | In Class Exam based on Quizzes |
| **4: Metacognitive Thinking:** Students will **evaluate** the effectiveness of a project plan or strategy to **determine** the degree of their improvement in  knowledge and skills. | Discussions, group work, board work, low-stakes writing, homework, in-class exercises, and chapter reviews | Class Project |
| **5. Communication Fluency:** Students will **develop** cohesive oral, written, and visual communications **tailored** to  specific audiences. | Discussions, group work, board work, low-stakes writing, homework, in-class exercises, and chapter reviews | In Class Exam based on Quizzes |

**Course Schedule/Course Requirements/Due Dates**

**Jan 8-Feb 15(Algebra):** Sec. A 1.1 – 1.4, A 2.1 – 2.3, A 3.1 – 3.5, A 4.1 – 4.6, and A 5.2

**Feb 13-Mar 15(Statistics):** Sec. S 1.1 – 1.3, S 2.1 – 2.3, S 3.1 – 3.3, S 4.1 – 4.2, S 5.1 – 5.2, and S 6.1 - 6.4.

**March 16-April 19(Logic):** Sec. L 1.1 – 1.5, L 2.1 – 2.5, and L 3.1 – 3.6

**Algebra Project** due **on Thursday** (Feb 15) by 1:59pm **Statistics Project** due on Thursday (March 15) by 1:59pm **Logic Project** due on Thursday (April 19) by 11:59pm

**Exam 1(Algebra)** on Thursday (Feb 15)

**Exam 2(Statistics)** on Thursday (March 15)

**Exam 3 (Logic)**on Thursday (April 19)

**Final Exam** on Monday(April 30)12:45pm- 2:45pm

**(comprehensive)**

**Grading Policy**

You will be able to obtain a maximum of 500 points in this class, divided as follows:

* **Exams (300 points):** There will be three in-class exams and one final exam (100points each). Out of these 4 tests one lowest test will be dropped.These exams will focus on the topics discussed in class and in the homework. **Homework will be assigned in class.** You can bring questions about homework problems to class, office hours, or the tutoring lab. Homework assignments will not be graded but you must do them all. All the quizzes and tests are based on homework problems.**The Final exam will be comprehensive.**
* **Projects (100 points):** There will be three projects (33 each) during the semester, one on each of the three main topics of the course. These projects will require you to write prose responses of a modest length (2 pages), and create additional documents using Excel. Detailed instructions will be provided for each project. The due dates are listed above. You will submit your projects electronically using MU Online, and **you will be required to upload one of your projects to a website for Marshall’s quality review program.** More details will be given during the semester.
* **Quizzes (100 points):** There will be daily Quizzes (52 quizzes, 2 points each).Two lowest quizzes will be dropped. These quizzes will focus on the topics discussed in class. They are posted on Blackboard.
* The **total number of points you earn** will be divided by the **total number of points possible** to determine your final percentage. At the end of the semester, your overall letter grade will be assigned on the following scale:

A: 90 – 100% B: 80 – 89% C: 70 – 79% D: 60 – 69% F: Below 60%