# Marshall University MTH 229 (CT) Syllabus

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| **Course Title/Number** | Calculus with Analytic Geometry I (CT)<br>MTH 229 - Section 301 - CRN 3069 - Credits 5 |
| **Semester/Year** | Intersession 2017 |
| **Days/Time** | MTWRF 10:30 am – 02:15 pm |
| **Location** | Smith Hall 509 |
| **Instructor** | Dr. JiYoon Jung |
| **Office** | Smith Hall 742D |
| **Phone** | (304) 696-3285 |
| **E-Mail** | jungj@marshall.edu |
| **Office Hours** | MTWRF 02:15 pm - 03:00 pm or by appointment<br><br>I am always happy to answer questions or talk about the course material any time. Just send me an email or stop by my office, Smith Hall 742D. |
| **Tutoring Services** | In addition to office hours, there are three free tutoring options for students in Math 229.<br><br>The math tutoring lab will be open this semester:<br>- Smith Music 115: 12:30 pm t- 4:30 pm<br>- Smith Hall 620<br>http://www.marshall.edu/math/tutoringlab.asp.<br><br>The University College offers appointment-based tutoring in in the Communications Building. Please consult their web page for additional information.<br>http://www.marshall.edu/math/tutoringlab.asp. |
| **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 and clicking on "Marshall University Policies." Or, you can access the policies directly by going to www.marshall.edu/academic-affairs/policies/.<br><br>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**

An introduction to calculus and analytic geometry, emphasizing critical thinking. Limits, derivatives, and integrals of the elementary functions of one variable, including transcendental functions.

This course fulfils a Core I: CT requirement (Integrative Thinking; Metacognitive Thinking; Communication Fluency; Inquiry Based thinking and Quantitative Thinking) and a Core II: Math requirement.

PR: ACT Math 27 or SAT Math 610 or MTH 132 "C" or higher.

**Course goals**

- To give students an understanding of the fundamental concepts of calculus and an appreciation of its many applications.
- To develop critical thinking skills by asking students to convert real-world problems into forms suitable for calculus, and interpret the results of calculus in real-world terms.
- To provide students with a deeper understanding of the mathematics that is used in their science and engineering courses.
- To develop facility in using graphing calculators and computers to solve mathematics problems.
- To satisfy program requirements.

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

- Calculus, Early Transcendental , 3rd edition by Jon Rogawski (ISBN: 978-1-4641-1488-5)
- 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 (TI-83 or higher) 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. **Every two unexcused absences will be subject to a full letter downgrade until a student reaches an "F".** There will be no credit for the daily quiz you missed unless you have an excused 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.**

| **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** |
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| **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 | In Class Exam based on Quizzes |
| **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<br>Class Project |
| **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 | In Class Exam based on Quizzes |

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| **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 Class Project |

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

May 8 – May 12: Sec.1.1 – 1.6, Sec.2.1 – 2.9
May 15 – May 19: Sec.3.1 – 3.10
May 22 – May 26: Sec.4.1 – 4.8
**May 29: Memorial Day Holiday - University Closed**
May 30 – June 2: Sec.5.1 – 5.5, 5.7, 5.8

- **Exam 1** on Friday, May 12, 2017 from 12:30 until 02:15 pm
- **Exam 2** on Friday, May 19, 2017 from 12:30 until 02:15 pm
- **Exam 3** on Friday, May 26, 2017 from 12:30 until 02:15 pm
- **Project** on Friday, May 26, 2017 by 11:59 pm
- **Final** on Friday, June 2, 2017 from 12:30 until 02:15 pm

**Grading Policy**

You will be able to obtain a maximum of 550 points in this class, divided as follows:

- Exams (400 points): There will be three in-class exams and one final exam (100 each). These exams will focus on the topics discussed in class and in the homework. **Homework will be assigned on MU Online after each lecture session.** You can bring questions about homework problems to class, office hours, or the tutoring lab.

- Project (50 points): There will be one project during the semester. The project will be written applications of calculus in real life of a modest length (2 pages). Detailed instructions will be provided for the project. The due date is listed above. You will submit your project electronically using MU Online, and **you will be required to upload your project to a website for Marshall's quality review program.** More details will be given during the semester.

- Participation Quizzes (100 points): There will be four participation Quizzes (25 each). These daily quizzes will focus on the topics discussed in class. You will be graded on a credit / no-credit basis, with credit for completing the quiz with a reasonable effort.

- 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%