

# Marshall University

## MTH 132 – SEC 204: Precalculus with Science Applications CRN 4046 – Spring 2016

**Class Time:** MTWRF 1:00 – 1:50 pm

**Location:** (The Arthur Weisberg Family Applied Engineering Complex) WAEC 1101  
(Tentative Syllabus)

**INSTRUCTOR:** Dr. Raid Al-Aqtash

**OFFICE:** WAEC 3231

**OFFICE PHONE:** 304-696-3044

**E-mail:** alaqtash@marshall.edu

**OFFICE HOURS:** MW 11:00 – 11:50 am, TR 10:00 am – 11:50 am, others by appointment.

**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/policies/>

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. The most recent revision of the 2015-2016 undergraduate catalog can be obtained at

[http://www.marshall.edu/catalog/files/UG\\_15-16\\_final\\_published.pdf](http://www.marshall.edu/catalog/files/UG_15-16_final_published.pdf)

### Academic Integrity:

- ✦ The University Rules, including the Code of Conduct, and other documented policies of the department, college, and university related to academic integrity, will be enforced. **Any violation of these regulations will be dealt with on an individual basis according to the severity of the misconduct.**
- ✦ Please note that **any act of Plagiarism, Cheating, or/and Academic Dishonesty** will be **prosecuted to the maximum extent according to MU catalog.**

### CLASS RULES:

1. **SILENT YOUR PHONES.**
2. If you need to leave the class early, inform your instructor before the class begins. Please **show your respect** to your classmates and your instructor.
3. **Good attendance is a major key to success in this (or any) class!** Students are expected to attend all scheduled classes.

**COURSE DESCRIPTION:** Functions used in calculus including polynomial, rational, exponential, logarithmic and trigonometric. Systems of equations and inequalities, conic sections, polar parametric equations, sequences and series. Binomial Theorem. etc.

**PREREQUISITES:** Math ACT 24 or above, or C or better in MTH 127 or C or better in MTH 130.

**COURSE OBJECTIVES AND STUDENT LEARNING OUTCOMES:** The table below shows the following relationships: How each student learning outcomes 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
Students will learn ...		
how to manipulate algebraic expressions and solve algebraic equations.	Homework & Classwork	Homework, Quizzes, and Exams
solving algebraic inequalities and using those results to graph polynomial and rational functions.	Homework & Classwork	Homework, Quizzes, and Exams
the graphs of basic polynomial, exponential, logarithmic, trigonometric, and inverse functions and how to manipulate them.	Homework & Classwork	Homework, Quizzes, and Exams
the six basic trigonometric functions and their application.	Homework & Classwork	Homework, Quizzes, and Exams
an introduction to vectors and their applications; solving systems of equations, manipulating matrices, and how these two are related.	Homework & Classwork	Homework, Quizzes, and Exams
sequences and series and their applications.	Homework & Classwork	Homework, Quizzes, and Exams
basic counting techniques and probability; solving “real-world” problems by translating the problem into algebra.	Homework & Classwork	Homework, Quizzes, and Exams

**TEXT: Algebra and Trigonometry, 4<sup>th</sup> edition, by James Stewart, Lothar Redlin, & Saleem Watson, (ISBN: 9781305071742) .**

**MATERIAL:** We will cover most of the chapters of the text, with additional topics as time allows.

**CALCULATOR:** Graphing calculator (i.e.TI-83, TI-84, etc.)

**GRADED WORK:** (750 points)

**1. Exams:**

There will be three in-class midterm exams and a final exam. The final exam will be comprehensive. In case of extreme emergency, serious illness, or university related activity, when I have been notified with evidence or approval, or excused absences approved by the Dean of Student Affairs, the student will be allowed to make up the missed exam.

<b>Exam #1: Friday, February 12<sup>th</sup>, 2016</b>	(100 points)	~ 13.33%
<b>Exam #2: Friday, March 11<sup>th</sup>, 2016</b>	(100 points)	~ 13.33%
<b>Exam #3: Friday, April 22<sup>nd</sup>, 2015</b>	(100 points)	~ 13.33%
<b>Final Exam: Friday, May 6<sup>th</sup>, 2015, 12:45 – 2:45 p.m.</b>	(150 points)	~ 20.00%

**2. Quizzes, Classroom Activities, and Homework Assignment:** (200 points) ~ 26.67%

There will be at least 2 {quizzes / activities / homework assignments} each week, either in class, take-home, or to be completed online through MUOnline blackboard, TBD. Each quiz/activity/homework

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weighs 10 points. **The highest 20 quizzes/activities/homework assignments will count.** Quizzes or homework assignments may contain problems that have been assigned as practice problems or are exactly like practice problems.

## 3. ATTENDANCE

(100 points) ~ 13.33%

**Good attendance is a major key to success in this (or any) class!**

### Attendance Policy:

- ✦ Students are expected to attend all scheduled classes. **I'll reserve the right to drop 2 points for each absence.** It is the student's responsibility to find out what was discussed in a missed class.
- ✦ **In case of an emergency, when I am notified ahead of time, or when the absence is excused by the office of the dean of affairs, a student will be allowed to makeup a missed work.**

**Roughly speaking 90% is at least an A , 80% is at least a B, 70% is at least a C, 60% is at least a D. Final grades will be determined by the end of the semester.**

**MATH TUTORING SERVICES:** Marshall University provides multiple options for free on-campus tutoring. It is the student's responsibility to take advantage of these facilities in addition to utilizing office hours.

- The Mathematics Department tutoring lab is located in Smith Hall 115 and/or Smith Hall 620 (computer lab). The tutoring hours are:
  - In Smith Music Hall 115: 10:00am to 4:00pm Monday to Thursday, and 10:00am to noon on Friday.
  - In Smith Hall 620: 5:00pm to 6:30pm Monday to Thursday.

The current schedule can be found at [www.marshall.edu/math/tutoringlab.asp](http://www.marshall.edu/math/tutoringlab.asp). Schedules for the new semester are usually posted during the second week of classes.

- The University College has a tutoring lab on the first floor of Laidley Hall. Information regarding this facility can be found at [www.marshall.edu/wpmu/uc/tutoring-services](http://www.marshall.edu/wpmu/uc/tutoring-services).

**ADD/DROP: The last day to drop class (no entry to academic record) is January 15<sup>th</sup> 2016.**

**Withdrawals: March 18<sup>th</sup>, 2016 is the last day to withdraw "W" from the class.**

The complete academic calendar is available at

<https://www.marshall.edu/calendar/academic/spring2016.asp>

### Special Needs Policy:

Students with special needs should meet with the instructor as soon as possible to arrange for reasonable provisions to ensure an equitable opportunity to meet all of the requirements of this course. At the discretion of the instructor, some accommodations may require prior approval by H.E.L.P. program (<http://www.marshall.edu/help/>) or by similar programs in the University.

### Blackboard / Electronic Communications:

Blackboard will be used to post pertinent class information and course documents. For technical problems with Blackboard contact IT Services Desk 304-696-3200.