

Pre-Calculus (UMKC Math 120) Syllabus 2017-18

INSTRUCTORS:

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Plan Period: 10:09-10:54 AM

PREREQUISITE: Three units of high school mathematics (Algebra I and higher)

GENERAL CATALOG DESCRIPTION (UMKC): Review of elementary algebra, solution of equations, functions, exponential and logarithmic functions, inequalities, systems of linear equations, equations of second degree and their graphs, binomial theorem, complex numbers, and polynomials.

GENERAL CATALOG DESCRIPTION(PCHS): Pre-Calculus is a study of various types of algebraic equations and inequalities, functions and their inverses, theory of higher degree polynomial equations, systems of equations, determinants, logarithms, exponentials and applications. A study of trigonometric functions and their inverses, formulas and identities, conditional equations, radian measure, arc length, angular velocity, function graphing and solution of triangles. This course is intended for students planning to pursue a college degree in mathematics, science, engineering, and some business degrees and is a prerequisite for Calculus. Completion of daily homework is required.

TOPICS: Attached is the list of core topics for the current textbook used by the department. An approved textbook for the course should include the following topics:

- Fundamental Concepts of Algebra
- Functions & Graphs
- Polynomial & Rational Functions
- Exponential & Logarithmic Functions
- Trigonometric Functions
- Analytic Trigonometry
- Additional topics in Trigonometry
- Systems of Equations
- Mathematical Induction

The student may elect to take this course for five hours of college credit from UMKC; enrollment for this will take place in August. The cost is about \$90 per college credit hour.

REQUIRED TEXT AND MATERIALS:

Precalculus, 5th Ed. Robert Blitzer

Basic supplies, such as a notebook or paper, and a writing utensil.

Graphing calculator (TI-84 or TI-84 Plus)

FINAL EXAM: A cumulative course final will be given at the end of the 2nd semester. It will be worth between 15-20% of your 2nd semester grade.

ACADEMIC HONESTY: It is the philosophy of the University of Missouri Kansas City that academic honesty is the only acceptable mode of conduct. Academic dishonesty will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with UMKC regulations and procedures. Discipline may include suspension or expulsion from the course

GRADING INFORMATION AND POLICIES:

1. Percentage breakdown

High School Grade

A = 90% - 100%

B = 80% - 89%

C = 70% - 79%

D = 60% - 69%

F = below 60%

Students' grade will be weighted 95% assessment and 5% practice. The only practice required for each unit is a completed Unit Review. Individual practice assignments may be substituted for all (or part/s) of the Unit Review.

2. All assessments will be completed within one hour.
3. No retakes on assessments.
4. A midterm exam will be given at the end of 1st semester.
5. A cumulative course final will be given at the end of the 2nd semester. It will be worth between 15-20% of your 2nd semester grade.
6. Dual credit students' grade will be an average of 1st and 2nd semester grades.

EXPLANATION OF GRADING

In this course, students will be assessed using target-based grading. As this is most likely new to some students and parents, this document is meant to explain the advantages of target-based grading over traditional grading and also clarify how students will be assessed in this course.

In a target-based reporting system, a student's grade is recorded on a scale of 0 to 4 for each learning target according to the scale below.

4 – Demonstrates thorough understanding of concepts and/or skills. (*I get it!*)

3.8 - Demonstrates thorough understanding of concepts and/or skills, but made a small error. (*I made a silly mistake.*)

3.5 - Demonstrates understanding of concepts and/or skills, but with small errors. (*I almost get it.*)

3 - Demonstrates understanding of concepts and/or skills, but with errors. (*I'm starting to get it, but I need some help.*)

2.5 - Demonstrates understanding of basic concepts and/or skills. Performance varies in consistency with regard to accuracy and quality. (*I have some idea, but I need help.*)

2 - Shows some understanding, but insufficient for a passing grade (*I don't really get it. I need lots of help!*)

1 - Does not demonstrate understanding of basic concepts or skills. (*I am totally lost.*)

At the completion of every chapter or unit, students will take an assessment over all the learning targets in the unit. Assessments will be comprised of 4 to 5 learning targets. Existing grades (from checkpoints) will be replaced by unit assessment scores. Students will be allowed calculators and a formula guide for most tests.

NOTES ON CHROMEBOOKS:

Chromebooks should remain in your bag until instructed otherwise with the expectation that you will practice digital citizenship during classroom use.

CELL PHONES/OTHER ELECTRONIC DEVICES

Please do your part to minimize classroom distractions by putting cell phones/other electronic devices away until instructed by your teacher that use is ok. Use outside those guidelines could result in confiscation of phone/electronic device for the rest of the hour. Further violations will be result in parent &/or administrative contact.

ADDITIONAL HELP

I am available for consultation on Monday through Friday 3:00 pm to 3:30 pm. No appointment is necessary, but occasionally I have a meeting that interferes with my availability. Other times are available by appointment.