2020-2021 OnRamps Precalculus

(M305G Preparation for Calculus – The University of Texas)

Ms. Berry Room 216

Course Description

Using a creative and connected approach, students deepen and extend their knowledge of functions, graphs, and equations from their high school algebra and geometry courses so that they can successfully work with the concepts in a rigorous university-level calculus course. This course is designed to push students well beyond "drill and kill" exercises, emphasizing conceptual understanding of mathematical definitions and developing logical arguments with their peers.

Inquiry Based Learning

This course uses Inquiry-Based Learning (IBL), a pedagogy designed to engage students in the educational process. Inquiry-Based Learning is a student-centered methodology, which emphasizes the importance of the active construction of learning. ***Therefore, students are expected to pose questions, make decisions, design plans and experiments, discuss, collaborate, communicate results and provide justified answers and explanations when engaged in the inquiry process.***

Course Content

By the end of this course, students will have a deeper and more connected understanding of the following units:

1. Functions, Rates, and Patterns
2. Algebra and Geometry
3. Exponential and Logarithmic Functions
4. Trigonometry
5. Limits and Rate of Change of Functions
6. Exploring Other Coordinate Systems
7. Sequences and Series

Video Tutorial website: **http://www.khanacademy.org/**
Contacting Ms. Berry: **gberry@aledoisd.org** or via **Remind** messaging
Join Remind: https://www.remind.com/join/onrampsahs

IMPORTANT NOTE:

Ms. Berry reserves the right to adjust or change any of the policies and expectations below if deemed necessary for the success of students.

Classroom Expectations

Class attendance: Attendance is critical to the learning in this course. If an absence is expected then arrangements should be made with the OnRamps Instructor prior to the absence. If an absence is unexpected then students must communicate with the OnRamps Instructor as soon as possible. Students are responsible for getting the missed materials from their peers.

Class participation: Participation with peers is a critical feature to this course. Presenting work with the class is also a frequent expectation of the students.

Behavior expectations: Students should conduct themselves in a collegial manner with their peers and instructor.

Computer Access: The textbook and quizzes for this course are online. You must have access to a computer every day.

Phones must always be secured inside of your school bag and may not be operational for any reason unless specifically instructed otherwise by Ms. Berry.

*******Absences & Extracurricular Activities*******

Test dates are established with the University of Texas and the window of opportunity to take the online tests is locked according to the UT professors. It is imperative that you attend class on test day. Please DO NOT MISS these test dates!

Homework

Students will be expected to complete homework assignments and "Quizzes" outside of class time. These assignments are sometimes lengthy but are necessary as a means of preparation for the UT Tests. Homework will be checked in a variety of manners including but not limited to completion or accuracy grades. These grades are for the high school course only and will not reflect in their college grade. Homework that is not turned in on time will receive an initial grade of 0, but will still be accepted under the AISD Grading Guidelines regarding reteach/retake/re-do of **formative** assessments up until the day of the scheduled "quiz" (high school test) over that topic. (See AISD Grading Guidelines for details.)

Explorations

Most explorations will be completed in groups while in class. Occasionally they will be assigned as homework. Explorations that are not turned in on time will receive an initial grade of 0, but will still be accepted under the AISD Grading Guidelines regarding reteach/retake/re-do of **formative** assessments up until the day of the scheduled "quiz" (high school test) over that topic. (See AISD Grading Guidelines for details.)

"Quizzes" – (Really Tests for High School Course)

"Quizzes" are created by UT as support grades for the high school class and preparation for the UT tests. The quizzes are taken online and students will have multiple opportunities to take and improve their quiz scores. These MUST be completed outside of class by the designated deadline or a 0 will be entered in the gradebook for that quiz. The assigned quiz will be open and available online for approximately 3 to 5 days. While a quiz is open, a student can take the quiz up to 2 times during the open period for a score up to 100%. Once a quiz is closed, it cannot be reopened. Some "quizzes" will be administered during the class as a collaborative group grade, but must be completed within the class time. One additional attempt may be allowed in accordance with the AISD Grading Guidelines regarding reteach/retake of **summative** assessments up until the scheduled UT Exam for that unit. (See AISD Grading Guidelines for details.)

Precalculus Homework Help

Precalculus is a fast paced and challenging class that builds on topics from all middle and high school classes. If a student discovers they have a gap, they will need to address it outside of class time either through online tutorials or during tutorial hours. Students are strongly encouraged to create study groups. We hope that students will establish consistent study groups that meet regularly.

Grading Policy

• 60% Summative Assessments ○ UT Exams ***(May not be retaken!)*** ○ "Quizzes" (High School Tests)	• 40% Formative Assessments ○ Homework ○ Explorations

**** Parent Portal will serve as the official record of grades, not the Canvas gradebook. ****

Class Materials

- Charged computer EVERY day
- A 1½ inch binder with lined paper and graph paper
- (1) box of #2 **Mechanical** Pencils
- Highlighters
- (1) box of Kleenex
- Graphing calculator every day!
- Index cards

Key to Success:

- Turn in assignments by deadlines
- Independent Study
- Constantly ask yourself "Why" Don't just get an answer and circle it. Take a step back and ask "Why does/doesn't it make sense?"
- Value the process just as much as the solution.

The Power of Study Groups

From "The Power of Study Groups, Two Heads are Better Than One" from The College Board website

Benefits of Study Groups

- Note-taking reinforcement (compare notes to make sure you didn't miss anything)
- Sharing talents (each person brings different strengths)
- Covering more ground (3 can usually solve a problem that none would have solved alone)
- Support System (common goals of good grades can help support each other)
- Socializing (it's more fun to study with others)

Guidelines for Getting a Group Together

- How many? (4 to 6)
- Who? (Classmates who seem to share your interest in doing well) Look for people who stay alert in class, take notes, ask questions and respond to the teacher's questions.
- Where? (Some place free of distractions with room to spread out)
- How Long? (1 to 2 hours)
- When? (on the same day and time each week)

Create a Study group of 3-5 Students that will meet once a week. Have a shared drive or way to video conference and support each other.

Name	Email

Proposed meeting time and location: