DeAnza College

MATH 31 PRECALCULUS I: THEORY OF FUNCTIONS Summer 2020

Math-D031 – 05 CRN: 13049 Instructor: Neelam R. Shukla

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Class Hours: MTWTh 12:30 pm to 2:45 pm Online (synchronous) via ConferZoom 06/29/2020-08/06/2020

Office Hours: Saturday 6:50 pm to 7:35 pm via ConferZoom

Textbook: Pre-calculus with Limits, 4thEd. by Larson.

Essential Student Materials: Graphing Calculator or computer software

Requisites: Prerequisite: MATH 114 or equivalent placement

Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273.

Description: Polynomial, rational, exponential and logarithmic functions, graphs, solving equations, conic sections, systems of equations and inequalities, sequences and series.

Course Objectives

A. Graph functions and relations in rectangular coordinates
B. Synthesize results from the graphs and/or equations of functions and relations.
C. Apply transformations to the graphs of functions and relations.
D. Recognize the relationship between functions and their inverses graphically and algebraically
E. Solve and apply equations including linear, absolute value, radical, and solve linear and absolute value equations
F. Solve and apply equations including rational, polynomial, exponential, and logarithmic, and solve nonlinear inequalities
G. Solve systems of equations and inequalities.
H. Apply functions to model real world applications
I. Develop and use sequences and series

Student Commitment: • This is a demanding but rewarding class. This class expects students to attend all classes and have a minimum of 10 hours of study each week outside of class.

• Math 31 covers a lot of material and moves at a rapid pace. At De Anza College (and all colleges) each at least 2 hours of study outside of class are expected for each hour in class, for a total of 15 hours weekly.

• If you don't have time for studying outside of class or can't commit to attending each class, then you should plan to take this class in a quarter when you can commit the necessary time to succeed.

• This is also a collaborative class. You will be expected to work in cooperation with your classmates (No exceptions). You will be expected to discuss ideas, questions and strategies with

your group. Share your thoughts as often one idea will spark another and so on. Working in groups does not mean that students sit together quietly working alone and not talking with each other!

• Although Elementary Algebra is a Mathematics course, English reading comprehension and English writing play a very important role in this course. Communication is critical in life, both giving and receiving information. Students will be asked to carefully explain their thinking and problem-solving strategies both verbally and in writing. Grading will assume college level standards - proper sentence structure, capitals and periods**.**

There will be 4 Exams for 40 % each, No Makeups (I will pick best three).

Final Exam – 6th August for 30% **4 Quizzes** for 20% (I will pick score of best 3).

Home Work 10 %

Grade Breakdown: 90 − 100% = A-,A, 80 − 89% = B-,B, B+. 70 − 79% = C-,C, C+. 60 − 69% = D. Below 60% = F.

Free Tutoring: I strongly encourage you to utilize this resource. More information can be found here: http://www.deanza.edu/studentsuccess/mstrc/

Supplemental Resources: I encourage you to poke around the library and web to see what other supplemental resources exist. One great resource is the following link: http://tutorial.math.lamar.edu/Classes/Alg/Alg.aspx

Disability Support Services: If you need to contact the Disability Support Services, then please contact them as soon as possible. More information can be found here: https://www.deanza.edu/dss/ **Academic Integrity**: This is pretty straightforward: Do not cheat on quizzes, exams, or directly copy other student's work. It is not worth getting caught and suffering the consequences. For more information about De Anza College's policy on academic integrity: https://www.deanza.edu/studenthandbook/academic-integrity.html

Policies for This Class: These policies are part of the syllabus and will be strictly enforced. By enrolling in this course, you as the student agree to accept these policies and follow them and agree that the **instructor reserves the right to drop a student from the course with a W if any of the policies are violated.** Further action may also be taken against a student who violates specific policies, such as the policy on cheating.

• Cell phone use (talking on your phone, texting, etc.) during lecture is not allowed. This is considered to be rude behavior and tells me that you are not paying attention in class.

• Talking during class is also not allowed. This is also considered to be rude behavior, and it is distracting to the professor and fellow students. have emailed the instructor. If you have an emergency and need to use your cell phone, then you are free to excuse yourself from class to deal with the situation.

• Tests are usually given at the end of class.

• Late adds and late drops will not be processed. Calendar:

• **Dates for Exams and quizzes**: Please check Canvas as classes are online.
One least score of quiz and exam will be dropped.

• Grade Breakdown: 90-93 % A-, 94−100% = A, 80-83 B-, 84−86% = B, 87-89 B+ 70−75% = C. 76-80% C+, 60-69% D. below 60% = F.

Week 1	1.1-1.8Review	Quiz 1
Week 2	1.9,1.10,2.2-2.3 Review	Exam 1, Quiz 2
Week 3	2.4, 2.5-2.7, Review	Exam 2, Quiz 3
Week 4	3.1,3.2,3.3, 3.4,3.5 Review	Exam 3
Week 5	7.3,7.5, 9.1-9.3 Review	Quiz 4
Week 6	10.2,10.3,10.4 Review	Exam 4 Final Exam (6th August) 12:30 pm- 2:30 pm

Student Learning Outcome(s):

* Investigate, evaluate, and differentiate between algebraic and transcendental functions in their graphic, formulaic, and tabular representations.

* Synthesize, model, and communicate real-life applications and phenomena using algebraic and transcendental functions.