Applied Complex Variables: MATH 3160-001

Summer 2017

Instructor: Huy B. Dinh **Time:** TTH 12:25 PM – 1:45 PM
Email: hdinh@math.utah.edu **Place:** LCB 215

Canvas Page: TBA

Office Hours:

- Mondays, 10 AM to 11 AM, JWB 121
- Thursdays, 11 AM to noon, JWB 121
- Tuesdays, 11 AM to noon, TBA (in SFEBB)

Textbook: Will be an online textbook. The details are being settled.

Course Information: Math1090, College Algebra for Business and Social Sciences is a 3-credit semester course.

Prerequisites: At least a C grade in Math1010 (Intermediate Algebra) OR Math1050 (College Algebra) OR in Math1080 (Precalculus) OR an Accuplacer score of 60 on the College Level Math (CLM) test OR at least an ACT Math score of 23 OR at least SAT Math score of 540.

Course Description: Functions and graphs, polynomial and rational functions, matrices, Gaussian elimination, exponential and logarithmic functions, growth, periodic and continuously compounded interest, arithmetic and geometric sequences, annuities and loans

Expected Learning Outcomes: Upon successful completion of this course, a student should be able to:

1. Graph and analyze quadratic, exponential and logarithmic functions; solve quadratic, exponential and logarithmic equations.
2. Understand what a mathematical function is and know how to use linear, quadratic, logarithmic and exponential functions to model real world examples.
3. Know how to solve a system of linear or quadratic equations that arise in business applications.
4. Find solutions to linear programming problems, to maximize a function over a geometric region.
5. Perform simple matrix algebra computations.
6. Use matrices to solve systems of linear equations.
7. Understand what an inverse function is and be able to find the inverse function, when it exists.
8. Distinguish between simple and compound interest situations.
9. Calculate future and present value of annuities, and know when to use which formula for the life application.
10. Compute an amortization schedule and loan payments, such as automobile or mortgage payments.

Grading Scale:

A	A-	B+	B	B-	C+
[100, 93]	(93, 90]	(90, 87]	(87, 83]	(83, 80]	(80, 77]
C	C-	D+	D	D-	E+
(77, 73]	(73, 70]	(70, 67]	(67, 63]	(63, 60]	(60, 0]

Score Weighting: The grades will be calculated as follows

Assignment	Total Score %
Homework	10 %
Quizzes	10 %
Midterm	20 %
Midterm	20 %
Midterm	10 %
Final Exam (December 15)	30 %

There will be 3 midterms. Your lowest midterm score will count for 10% of your grade and your top two midterm scores will each count for 20% of your final grade. Students may view their grades through Canvas which is accessible from the main University of Utah website www.utah.edu. To log in, you use the same student ID and password that you use for Campus Information System. Grades will be posted the day that they are calculated. You are advised to check your grades to ensure there are no mistakes. Please immediately inform me of any mistakes which you find via email.

Lectures: This class will have a flipped classroom format. Before class, each student will be expected to watch lecture videos which take about 30 mins to an hour and a half. During class, I will be presenting problems.

Homework: Homework will be online due on Tuesdays. The homework will follow the online lecture. The answers will be from the video.

Weekly Quizzes: There will be weekly quizzes covering questions from class.

Midterms: There will be three one-hour midterm exams throughout the semester, and the dates will be fixed, according to the course outline/schedule that is on our class web page. They will be during normal class time, in our usual classroom. An 8.5 by 11 inch note sheet, front and back will be allowed. Exams will be on September 19, October 24 and November 21 during the usual class time. If you have a conflict, then I must know one week before the exam date.

Final: The final exam for this class is comprehensive and will occur during the regularly scheduled final exam time, given by the University. An 8.5 by 11 inch note sheet, front and back will be allowed. The final

exam will be on December 15, 2017 at 3:30 to 5:30 PM. If you have a time conflict, then I must know by December 1, 2017.

Calculators: You may find it helpful to have a graphing calculator for your ownpersonal use. However, if I allow calculators on exams or quizzes, I will only allow scientific calculators (no graphing or programmable calculators will be allowed ever). Calculators from the following list will be allowed. http://www.math.utah.edu/~strube/2016_Fall_MATH1090/Math1090_FinalExam_ApprovedCalculators.html. Others calculators maybe allowed, but I should informed of them before the final exam.

ADA Statement: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in some alternative format with prior notification to the Center for Disability Services.

Student Responsibilities: All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. http://regulations.utah.edu/academics/6-400.php

Other Rules:

- Class disruptions and disrepectful behavior towards myself or other students will not be tolerated.
- There are no makeup or retakes for exams or quizzes. Contact me if there are any issues.
- If you are caught cheating, then you will receive a zero on the assignment and be reported to the Dean of Students. Additionally, cheating international students will be reported to the International Students Office.
- **Using laptops is never allowed in class.**
- Let me know as soon as possible if there are any issues which severely impact your performance as a student in the course. I am willing to help in all cases to the best of my abilities, but I will have less options if I have less time to address issues.