MATH 2312 - Precalculus - Spring 2016
Course Syllabus

Course Information

Section	Time	Instructor	Room
2312.001	Mon, Wed, & Fri : 10:00am - 10:50am	Dr. Kelly Aman	FO 2.208
2312.002	Mon, Wed, & Fri : 11:00am - 11:50am	Emily Herzig	FO 2.208
2312.003	Mon, Wed, & Fri : 12:00pm - 12:50pm	Emily Herzig	FO 2.208

Professor Contact Information

Dr. Kelly Aman
FO 2.110   972-883-6588   Kelly.Aman@utdallas.edu
Hours: 11am-noon MWF

Emily Herzig
FO 1.210   972-883-3507   elh042000@utdallas.edu
Hours: 1-2 pm MW

Course Pre-requisites, Co-requisites, and/or Other Restrictions
A test score of 480 on the SAT II Mathematics Level IC exam or a grade of at least a C- in MATH 1314 and MATH 1316 or equivalent courses.
The goal of this course is to provide the student with an understanding of algebraic, exponential, logarithmic, trigonometric and inverse trigonometric functions. Additionally, the successful student will gain proficiency in the algebraic manipulation required to succeed in Calculus.

Course Description
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Student Learning Objectives/Outcomes
1. Students will evaluate functions, determine their domains, and be able to find the inverse function if one exists.
2. Students will perform algebraic operations with polynomial and rational functions, and determine the domains and asymptotes of rational functions.
3. Students will evaluate and recognize exponential and logarithmic functions, and use their properties to solve exponential and logarithmic equations.
4. Students will evaluate trigonometric functions, use fundamental trigonometric identities, and evaluate inverse trigonometric functions.
5. Students will solve systems of linear equations

Required Textbooks and Materials

WEBASSIGN:	An access code is required for the online homework. It also grants access to an online copy of the textbook.
TEXTBOOK:	Precalculus, 9th edition or ebook by Larson & Hostetler.
CALCULATOR:	A scientific calculator is recommended but not required; graphing calculators are not allowed.

IMPORTANT DATES AND HOLIDAYS

Martin Luther King Jr. Day	Monday, Jan. 18
Census (last day to drop without record)	Wednesday, Jan. 27
Last day to drop (requires instructor approval)	Monday, Mar. 28
Spring Break	March 14-19
Last Day of Classes	Saturday, April 30 (exams until May 9th)
EXAM I	Thurs, Feb. 25, 8:30 - 9:45pm
EXAM II	Thurs, April 14, 8:30 - 9:45pm
FINAL	TBA, check Coursebook

The exam locations will be announced in class.

Grading Policy

Your final class average will be determined based on the following weighting:

- **Homework 35% (DHW 20%, GHW 15%)**
- **Quizzes 15%**
- **Lower of Exam 1 and 2 15%**
- **Higher of Exam 1 and 2 20%**
- **Final Exam 15%**

There will be no make-ups.

Grading Scale:

[96.5, 100]	[92.5, 96.5)	[89.5, 92.5)	[86.5, 89.5)	[82.5, 86.5)	[79.5, 82.5)	[76.5, 79.5)
A+	A	A -	B+	B	B -	C+

[72.5, 76.5)	[69.5, 72.5)	[66.5, 69.5)	[62.5, 66.5)	[59.5, 62.5)	[0, 59.5)	
C	C -	D+	D	D -	F	

Course & Instructor Policies

Homework:	Homework has two components: Digital Homework (DHW) and Graded Homework (GHW). DHW is assigned weekly on WebAssign. GHW will be assigned less frequently, and will be posted as a PDF file on eLearning. The GHW will be hand-graded by TAs, and solutions will be posted after the assignments are turned in. The lowest 2 DHW and lowest 1 GHW grades will be dropped when computing final grades.
Quizzes:	There will be in-class quizzes throughout the semester, which will be announced at least one class day in advance. These quizzes will be short, and are intended to ensure memorization of key concepts. The lowest quiz grade will be dropped when computing final grades.
Exam:	There will be two exams and a comprehensive final. The lowest exam score constitutes 15%, the higher exam score 20%, and the final 15%.
Calculator:	A scientific calculator is optional and is permitted on exams and quizzes. Graphing calculators, phones, or other electronic devices are NOT ALLOWED on quizzes or exams.

Course Schedule (subject to change)

Date	Topics
Jan 11	Syllabus, WebAssign, 1.1 Rectangular Coordinates
Jan 13	1.1 (cont.), 1.2 Graphs of Equations
Jan 15	1.3 Linear Equations in Two Variables
Jan 18	**MLK Day**
Jan 20	1.4 Functions
Jan 22	1.5 Analyzing Graphs of Functions
Jan 25	1.6 A library of Parent Functions, 1.7 Transformations of Functions
Jan 27	1.8 Combinations of Functions: Composite Functions
Jan 29	1.9 Inverse Functions
Feb 1	2.1 Quadratic Functions and Models
Feb 3	2.2 Polynomial Functions of Higher Degree
Feb 5	2.3 Polynomial and Synthetic Division
Feb 8	2.4 Complex Numbers
Feb 10	2.6 Rational Functions
Feb 12	2.6 (cont.)
Feb 15	3.1 Exponential functions and Their Graphs, 3.2 Logarithmic Functions and Their Graphs
Feb 17	3.3 Properties of Logarithms
Feb 19	3.4 Exponential and Logarithmic Equations
Feb 22	3.4 cont.
Feb 24	Exam 1 Review, **Exam 1 THURS at 8:30pm**
Feb 26	4.1 Radian and Degree Measure
Feb 29	4.3 Right Triangle Trigonometry
Mar 2	4.4 Trigonometric Functions of Any Angle,
Mar 4	4.2 Trigonometric Functions: The Unit Circle
Mar 7	4.5 Graphs of Sine and Cosine Functions
Mar 9	4.5 continued, start 4.6
Mar 11	4.6 Graphs of Other Trigonometric Functions
Mar 14	
Mar 16	**SPRING BREAK**
Mar 18	
Mar 21	4.7 Inverse Trigonometric Functions
Mar 23	5.1 Using Fundamental Identities , start 5.2
Mar 25	5.2 Verifying Trigonometric Identities
Mar 28	5.3 Solving Trigonometric Equations
Mar 30	5.3 cont.
Apr 1	5.4 Sum and Difference Formulas
Apr 4	5.5 Multiple-Angle and Product-to-Sum Formulas
Apr 6	6.3 Vectors in the Plane
Apr 8	6.3 cont.
Apr 11	10.7 Polar coordinates
Apr 13	Exam 2 Review, **Exam 2 THURS at 8:30pm**
Apr 15	10.8 Graphs of Polar Equations
Apr 18	10.2 Intro to Conics: Parabolas
Apr 20	10.3 Ellipses
Apr 23	10.4 Hyperbolas
Apr 25	7.2 Two-Variable Linear Systems
Apr 27	7.3 Multivariable Linear Systems
Apr 29	FINAL EXAM Review

eLearning and WebAssign

This course uses the UTD eLearning system to distribute content, send out announcements, and   track grades. Go to http://elearning.utdallas.edu and login using your net ID and password. You should see a link for MATH 2312.**701** - Precalculus. Follow this link and you will be taken to our course homepage, which contains a link to **WebAssign**. YOU MUST USE THIS LINK TO ACCESS WEBASSIGN. The first time you follow this link you will be asked for an **Access Code**. If you purchased the textbook from the bookstore, you should already have an access code. If not you can purchase an access code directly when asked for it. If you are asked for a Class Key, see the technical support document on the course homepage.

Common WebAssign Issues

If you follow the WebAssign link and are asked for a Class Key instead of an access code, try the following:
- Try using Google Chrome or Mozilla Firefox to access the site. Internet Explorer and Safari tend to have issues with WebAssign.
- Clear your browser's cookies and cache.

If you get an LTI OAuth error, please see the "WebAssign Java Issues" PDF on the course homepage. Additionally, there is a more detailed login guide on the course homepage.
If you have any further WebAssign issues, please notify your instructor and contact WebAssign technical aupport.

Technical Support

If you experience any problems with your UTD account you may send an email to: assist@utdallas.edu or call the UTD Computer Helpdesk at 972-883-2911.

SI Sessions

Supplemental Instruction (SI) is offered for this course. SI sessions are free group study opportunities, scheduled two or three times per week. Sessions are facilitated by an SI Leader, who has recently taken the course and received a high final grade. Attendance is voluntary. For information about the days, times, and locations for SI sessions, refer to http://www.utdallas.edu/studentsuccess/leaders/si.html.

Additional Resources

The Student Success Center **Math Lab** offers *free* help in math, physics and statistic courses to UT Dallas students currently enrolled in classes. The Math Lab is staffed by tutors and learning specialists. We are open Monday - Thursday 11am-7pm through August 13. Students can:

- Drop by our Walk-in Lab in MC 3.606
- Contact the Math Lab with questions or comments: 972 – 883 – 5480 or mathlab@utdallas.edu

SWE-Society of Women Engineers: http://swe.utdallas.edu/
NSBE-National Society of Black Engineers: http://www.utdallas.edu/orgs/nsbe/nsbehome.htm

Field Trip Policies
Off-campus Instruction and Course Activities

> *Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at the website address* http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. *Additional information is available from the office of the school dean. Below is a description of any travel and/or risk-related activity associated with this course.*

Student Conduct & Discipline

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD printed publication, *A to Z Guide*, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Series 50000, Board of Regents, The University of Texas System,* and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391) and online at http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrates a high standard of individual honor in his or her scholastic work.

Scholastic Dishonesty, any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

Copyright Notice

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials, including music and software. Copying, displaying, reproducing, or distributing copyrighted works may infringe the copyright owner's rights and such infringement is subject to appropriate disciplinary action as well as criminal penalties provided by federal law. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. As a UT Dallas student, you are required to follow the institution's copyright policy (Policy Memorandum 84-I.3-46). For more information about the fair use exemption, see http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm

Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

Withdrawal from Class

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Student Grievance Procedures

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grade Policy

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade

must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.

Disability Services

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:
The University of Texas at Dallas, SU 22
PO Box 830688
Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)
disabilityservice@utdallas.edu

If you anticipate issues related to the format or requirements of this course, please meet with the Coordinator of Disability Services. The Coordinator is available to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with Disability Services to notify them of your eligibility for reasonable accommodations. Disability Services can then plan how best to coordinate your accommodations.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

These descriptions and timelines are subject to change at the discretion of the Professor.