Math 1060Q — Precalculus (Spring 2016)

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Description: Precalculus is a preparation for calculus which includes a thorough review of algebra. Emphasis will be on functions and their applications; in particular, polynomials, rational functions, exponentials, logarithms, and trigonometric functions.

Prerequisites: Recommended preparation: MATH 1010 or the equivalent. Not eligible for course credit by examination. Not open for credit to students who have passed any mathematics course other than MATH 1010, 1011, 1030, 1070, 1040, 1050 or 1060. A minimum score of 61% is recommended to register for MATH 1060Q. Students who fail to achieve this score are required to spend time on the preparatory and learning modules before re-taking the MPA or register for a lower level Mathematics course.

Course Materials:

***Precalculus 9ed*, by Larson)(Required textbook)**. You can buy the textbook from the UConn Coop or you can buy it from the publisher directly by visiting ~~http://www.cengagebrain.com/course/1-1WQNZWT~~. You will need a **WebAssign access code** to access your homework assignments. When you buy the textbook, the code will come bundled with the textbook. The unbundled version of the book (that is, the book without a WebAssign access code) can be obtained in many places, but the cost of buying the unbundled text and the WebAssign code separately may be significantly **greater**.**IMPORTANT!**
There are three ways to purchase the text and the WebAssign access code:
Get the text and WebAssign access code bundled together from the publisher's special website.
Get the text and WebAssign access code bundled together at the UConn Co-op.
Get the text separately from anywhere, and buy the WebAssign access code when you access your homework through HuskyCT.
We do not recommend using the third option above, because it is more expensive to buy the access code and the text book separately than bundled together. The option to buy the text and WebAssign access code bundled together lets you use that access code for the life of the edition of the textbook.
There is **only ONE way to register for WebAssign access**. Once the semester officially begins, simply log in to the 1060 class webpage (http://courses.math.uconn.edu/math-1060/), select the tab that says HOMEWORK, log into your HuskyCT account then follow the link on the left hand side for WebAssign Homework, following the prompts given. *When logging into WebAssign (through HuskyCT),* ***do not use Internet Explorer or Safari. Use Firefox or Chrome.***
You will have **two weeks of free access** to WebAssign, so you can get started right away in case you need some time to arrange to buy textbook with the access code.
Graphing calculators: TI 82, 83, 84, 84 plus, 85 or 86 are recommended and **can be used** on the exams and quizzes. Models TI-89 and above (including TI-Nspire) **ARE NOT** permitted on the exams or quizzes.

Homework and WebAssign:

Homework: To access the homework you will have to go through Huksy CT single sign-on. In your account you will find a link to do your homework using WebAssign. There will usually be 2-3 homework assignments per week. Each assignment will be made available on WebAssign several days before the section is covered in class. The due date for each assignment will be set by your instructor and will generally be two or three days after the material is covered in class. **You will get two attempts for multiple choice question and four attempts for each question that is not multiple choice, the exact number of attempts will depend on the number of choices.** After each attempt, you will be told whether your answer is correct or not. If you are not able to get the correct answer after your initial attempts, we recommend that you seek help from your instructor, your TA (if applicable), the Q-Center, a tutor, or another student.When accessing your online homework, use **Firefox or Chrome as your browser**; there are problems that can occur if you use Internet Explorer or Safari.Quizzes will be given during each discussion session beginning with the second week of classes. There are no make-up discussion quizzes, if you miss a discussion session then you will miss the quiz.

i>clicker Registration

Clickers will be used in the lectures. You must register your i>clicker by visiting the link through the **lecture section** of your instructor in HuskyCT. **Warning**: The web version of i>clicker (Apps for iPhone, Android, etc.) will not work in the classrooms. This clicker will work in other courses that require clickers. The clickers will only be used during the lectures on an intermittent basis so you should always bring your clicker to lecture. If you are not present or do not have your clicker with you when the clicker questions are asked, you will not earn the clicker points for that session.

Grading:

WebAssign Homework	10%
Discussion Quizzes	10%
Discussion Worksheets and Homework	10%
Clickers (Large lectures)	5%
Exam 1: (Tuesday March 1, 6-8 PM or 9-11 PM)	20%
Exam 2: (Tuesday April 12, 6-8 PM or 9-11 PM)	20%
Final Exam: Wednesday – May 4 (2 hours) 1 – 3PM	25%

The **common midterm exams** will be held on Tuesdays (3/1/16 and 4/12/16) 6-8 PM or 9 -11 PM in rooms that will be listed under exam info. When you registered for this course, you also registered for an exam time, so you are required to be available at these times. *Make-up exams are not provided*. You should put the exam dates into your calendar. If you work, you should make plans to be available for the exams. Graphing calculators (TI 82, 83, 84, 84 plus, 85 or 86) **can be used** on the exams. Models TI-89 and above (including TI-Nspire) **ARE NOT** permitted on the exams or quizzes.

Some tips:

1. If you've taken precalculus before, be warned — **this course is harder**. We will cover more, and it will be more in-depth, than what you've done before. This course is only recommended for students going on to take calculus and students who have scored above a 60 on the ALEKS assessment exam.
2. Don't miss class! Each day builds on the previous days, so if you miss class, you get behind very quickly. If you do get sick or have to miss class, talk to your classmates and instructor to catch up before the next class. The outline for the course that is available using the link above will provide you with information about the topics to be covered in discussion and lecture.
3. Watch videos and do worksheets (~~mathresources.uconn.edu/math1060~~). The videos and worksheets cover some of the most difficult and/or critical concepts.

OUTLINE FOR MATH 1060 – PRECALCULUS

Spring 2016

Week	Date	Lecture Text Section	Discussion Text Section	Topics
1	1/19	1.1		Pythagorean Theorem, Distance Formula, Applications
			Discussion – 1.2	Graphs of Equations, Intercepts, Symmetry, Applications (no circles)
2	1/25	1.3		Linear Equations in Two Variables, Slope, Graphing, Parallel, Perpendicular, Application Functions
		1.4A		Notation, Evaluating, Piecewise
			Discussion -1.4B	Domain, Difference Quotient, Applications
3	2/1	1.5A		Domain, Range, Zeroes
		1.5B		Function Behavior, Average Rate of Change, Even/Odd
			Discussion -1.6	Parent Functions
4	2/8	1.7		Transformations of Functions
		1.8		Composite Functions
			Discussion -1.9 **Bring Text to discussion**	Inverse Functions– Chap 1 Review 106 – 108
5	2/15	2.1A		Quadratic Functions, Completing Square, Vertex, x-Intercepts
		2.1B		Minimum, Maximum, Applications
			Discussion **Bring Text to Discussion**	**Review session for Exam 1 – Covers Sections 1.1 – 2.1**
6	2/22	2.2		Polynomials Higher Degree, End Behavior, Real Zeroes, Sketching

Week	Date	Lecture Text Section	Discussion Text Section	Topics
		2.6		Rational Functions, Domain, Vertical and Horizontal Asymptotes, Sketching
			DiscussionBring Exam Review to Discussion	**Midterm 1/Review during LectureExam 1 covers Sections 1.1 – 2.1**
7	2/29	Review		**Midterm 1/Review during LectureExam 1 covers Sections 1.1 – 2.1**
	3/1	**6-8PM or 9-11PM**		**EXAM 1 – click the "Exam Info" link on the class page once we are closer to the exam date to find the exam room assignmentsExam time was selected when you signed up for the course – either the 6 – 9PM or the 9-11PM slot**
		3.1		Exponential Functions and Graphs
			Discussion –3.2A/3.2B	Logarithmic Functions and GraphsApplications of Exponential and Logarithmic Functions
8	3/7	3.3		Properties of Logarithms
		3.4		Exponential and Logarithmic Equations
			Discussion – 3.5	Return Exam 1, go over solutionsExponential and Logarithmic Models
9	**3/14**	**NO CLASSES**	**SPRING BREAK**	
10	3/21	4.1		Radian and Degree Measure, Arc Length, Linear and Angular Speed (no minutes, seconds, no sectors))
		4.2		Sine/Cosine Domain/Period, Evaluating
			Discussion – 4.3A	45/45/90 and 30/60/90
11	3/28	4.3B		Applying Trigonometric Identities (Basic substitutions)
		4.3C		Right Triangle Applications

Week	Date	Lecture Text Section	Discussion Text Section	Topics
			Discussion – 4.4	Trigonometric Functions for any angle, Reference AnglesChap 3 Review 252 – 254
12	4/4	4.5		Graphs of Sine and Cosine- Horizontal and Vertical Translations
		4.6		Graphs of Other Trigonometric Functions (No Damped)
			Discussion – 4.7	Inverse Trigonometric Functions (emphasis on arcsin, arccos, arctan)
13	4/11	Review		**Midterm 2/Review during LectureExam 2 covers Sections 2.2 – 4.5**
	4/12	**6-8PM or9-11PM**		**EXAM 2 –click the "Exam Info" link on the class web page once we are closer to the exam date for up to date information.**
		4.8		Applications and Models
			Discussion – 5.1/5.2	Using Fundamental IdentitiesVerifying Trigonometric Identities
14	4/18	5.3		Solving Trigonometric Equations
		5.3		More- Solving Trigonometric Equations
			DiscussionBring exam review to discussion	Return Exam 2, go over solutionsBegin review for final
15	4/25	**Final Exam Review**		
			Discussion	Review Session for Final examThe Final is **cumulative** with emphasis on Sections 4.7-5.3
16	5/2	**Finals Week**	**Wednesday – May 4** 1 – 3 PM ITE C80	**MATH 1060 FINAL EXAM 2 hour common final exam – click on the Exam Info Link.**