Math 4B: Precalculus, Spring 2010

Instructor: Walid Tayar
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Office Hours: M, T, TH 9:00-9:50am in FEM 1K or by appointment
Math Center Hours: W 9:00-950am and 11:00-11:50am
Phone: 559-638-3641 ext. 3263
Schedule #: 56170 MTWF from 11:00am-11:50am in Room FEM 4E

Course Description:
The course is an analytic and comprehensive study of algebra, geometry and trigonometry designed to prepare students for calculus. Topics include conic sections, inequalities, systems of equations, polynomial, trigonometric, rational, exponential and logarithmic functions and their graphs.

Prerequisites:
Basic Skills Advisories: Eligibility for ENGL 125, ENGL 126
Subject Prerequisites: Successful completion of MATH 4A Trigonometry

Required text:
Make sure to buy the bundled textbook (which includes the textbook and access code) at the Reedley College Bookstore.

TITLE: Precalculus Essentials, 3rd Edition
AUTHOR: Robert Blitzer

Note: Before you buy the book, **make sure both you are ready to take this course.** This book comes bundled with a ***Student Access Kit***. It is very important that your book has the ***Student Access Kit*** with it. Once you open the kit you will not be able to return the book for a full refund.

Course Materials:
- 4 x 6 note cards
- Notebook paper
- Stapler (try the dollar store)
- 3-ring binder (for class notes)
- Paper, Pencils, Ruler
- Calculator (type will be discussed in class)

BLACKBOARD: This course will utilize blackboard for announcements, handouts, assignments, etc. You can access blackboard from the Reedley College homepage or at http://blackboard.reedleycollege.edu .
Your login and password to blackboard is as follows:
Login ID: "your student ID#"
Password: "your student ID#"

Course Outcomes:

Upon completion of this course, students will be able to:

A. graph and identify the domain and range of conic sections and the following types of functions and their transformations; polynomials, absolute value, rational, exponential, logarithmic and trigonometric.
B. solve the following types of equations; polynomial, rational, absolute value, trigonometric, logarithmic and exponential.
C. identify the solution set for inequalities with absolute value, polynomials and rational expressions.
D. set-up and solve mathematical modeling problems including; interest problems, exponential growth and decay, projectile and motion problems.
E. learn the analytic aspects of trigonometric functions of right, acute and related angles.
F. derive basic trigonometric identities and use them to simplify trigonometric expressions and solve trigonometric equations.
G. apply the unit circle to trigonometry and perform angle conversions using radian and degree measure.
H. memorize the trigonometric values of the fundamental angles and how to analyze inverse trigonometric functions.
I. apply the analytic aspects of inverse trigonometric functions and trigonometric formulas to simplify and solve trigonometric problems.
J. use partial fraction decomposition to prepare an expression for integration.
K. find the inverse of one-to-one functions, and graph the function and it's inverse.
L. solve systems of equations.

Course Objectives:

In the process of completing this course, students will:

A. graph and identify the domain and range of conic sections and the following types of functions and their transformations; polynomials, absolute value, rational, exponential, logarithmic and trigonometric.
B. solve the following types of equations; polynomial, rational, absolute value, trigonometric, logarithmic and exponential.
C. identify the solution set for inequalities with absolute value, polynomials and rational expressions.
D. set-up and solve mathematical modeling problems including; interest problems, exponential growth and decay, projectile and motion problems.
E. learn the analytic aspects of trigonometric functions of right, acute and related angles.
F. derive basic trigonometric identities and use them to simplify trigonometric expressions and solve trigonometric equations.
G. apply the unit circle to trigonometry and perform angle conversions using radian and degree measure.
H. memorize the trigonometric values of the fundamental angles and how to analyze inverse trigonometric functions.
I. apply the analytic aspects of inverse trigonometric functions and trigonometric formulas to simplify and solve trigonometric problems.
J. use partial fraction decomposition to prepare an expression for integration.
K. find the inverse of one-to-one functions, and graph the function and it's inverse.
L. solve systems of equations.

Online Homework:
There may be Online homework assignments. They are completed online and the assignments can be found at the CourseCompass website. The program is set up so that you must complete all the homework assignments with at least a 70% to be able to take the online chapter tests. Each assignment has a due date and the assignment will be unavailable to the student after the due date. It is important to stay current to be successful in the course!

Note: When working on homework, you do not have to complete an entire assignment during one session. If you need to stop while in the middle of an assignment, you can submit your work and the program will save it for you. You can then come back to the assignment and continue from where you left off at another time.

Written Homework:
There will be written homework assignments for the semester. These assignments will be collected in class. All work must be shown in order to receive full credit for these assignments. No Late assignments are accepted. I will answer any HW questions at the beginning of each class before HW is collected. Your homework will be graded on completeness, neatness, and effort. Problems must be written out in pencil and all work must be shown in order to receive credit. I will not accept HW on spiral bound notebook paper. Please staple your HW in the top left corner and clearly highlight the section number at the top of each page or it will not be accepted. If you come to class after the HW has been collected or are absent it will not be accepted for full credit. All late HW must be turned in by the following class meeting for half credit. If you are absent, you are still responsible for any HW assignments. It is your responsibility to keep up with the pace of the class.

Online Chapter Tests/Quizzes:
There may be one or more online test/quiz for some of the chapters covered. There are no make-ups for missed tests/quizzes. No exceptions.

In-Class Assignments:
There will be quizzes, in-class assignments and possibly group projects assigned throughout the semester. No in class assignments can be made up so attendance is very important. These assignments will be included as part of your HW grade.

Attendance:
If you are absent more than once in the first two weeks of the semester, more than twice in the first four weeks or more than 3 times in the first nine weeks, you may be dropped from the course. Attendance is a key factor in your success as a college student. Students are expected to attend all class meetings, be on time, and be in class the entire class session. 4 absences over the course of the entire semester may result in a drop from the course. However, if you decide to drop the course, it is your responsibility to make the drop official in the Admissions and Records office or else possibly receive an F in the course. Also, there are to be no visitors in class for any reason. Pagers, cell-phones, CD/DVD/MP3 players, and any other electronic device must be turned off, silenced, and out of sight before entering class. You will be asked to leave if your phone rings in class. Also, cell phones are NOT to be used as calculators.

Tardies:
It is distracting, rude and unfair to classmates and to the instructor when a student is late. Leaving class at anytime during the lecture will not be allowed. Please use the restroom/make phone calls before or after class. If you leave class at any time, it will count as a tardy. Two tardies will be counted as an absence. You are responsible for telling me, at the end of class, that you were tardy. If I mark you absent and you do not tell me of your tardy, you will remain absent. If you leave class early, you will be marked absent. Students with chronic tardiness may be dropped from the course**.**

Exams:
There will be an exam at the end of each unit, approximately every 2-3 weeks. Each exam will be worth 100 points. There are no make-ups for missed exams. No exceptions. Calling the day of the exam and telling me that you can not make it to class is inexcusable. All tests will be taken using pencil.

Final Exam:
A final exam worth 100 points will be given at the end of the semester during finals week.

- Final: Wednesday, May 19th from 11:00am-12:50pm

Grading:

- Homework (Online/Written) and Online Tests/Quizzes will be worth 20% of your overall grade.
- Exams and Final will be worth 80% (Lowest Exam score will be replaced by Final score)

Percent	Grade
90 - 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Outline:
Polynomials (2weeks)
Exponential & Logarithmic Functions (3 weeks)
Trigonometric Functions (3 weeks)
Circles (2 weeks)
Rational Functions (3 weeks)
Inequalities (2 weeks)
Systems of equations (2 weeks)

Important Dates:
January 11 (M) Spring 2010 instruction begins
January 11 - March 12 (M-F) Spring 2010 short-term classes, fi rst nine weeks
January 18 (M) Martin Luther King, Jr. Day observed (no classes held, campus closed)
January 22 (F) Last day to drop a full-term class for a refund for Spring 2010
January 29 (F) Last day to register for a full-term fall class for Spring 2010
January 29 (F) Last day to drop a fall full-term class to avoid a "W" for Spring 2010
February 12 (F) Lincoln Day (no classes held, campus closed)
February 15 (M) Washington Day observed (no classes held, campus closed)
February 16 (T) Last day to change a spring class to/from a Pass/No-Pass grading basis
March 12 (F) Last day to drop a full-term class (letter grades assigned after this date)
March 15 - May 21 (M-F) Spring 2010 short-term classes, second nine weeks
March 29 - April 2 (M-F) Spring Recess (classes reconvene April 5)
May 17-21 (M-F) Spring 2010 final exams week
May 21 (F) End of spring semester/Commencement

Accommodations for students with disabilities:
If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Please refer to the RC Catalog for the Plagiarism and Cheating Policy, pg. 51.

Note: This syllabus is subject to change at the discretion of the instructor.