Math 4B – Spring 2016 (51183)	MTWTH @ 10:00 – 11:50
Ms. Maria Ortiz (maria.ortiz@reedleycollege.edu)	FEM-4
Hours: T,W 1:00 – 2:00 p.m., F 10:00 – 11:00 am (other hours by appointment)	Office: CCI 211
Course ID:ortiz04531	Ext: 3208

PRECALCULUS

COURSE DESCRIPTION

Math 4B is a preparation for calculus. Topics which will be studied include polynomial, absolute value, radical, rational, exponential, logarithmic, and trigonometric functions and their graphs; analytic geometry and polar coordinates.

TEXTBOOK

Blitzer, Robert, Precalculus, 5th Edition. Pearson/Addison Wesley, 2014.

*Note: You do not need to buy the book, but you **must** buy the Access Code.*

SUBJECT PREREQUISITE: Successful completion (grade of *C* or better) in Math 4A or equivalent.

MATERIALS NEEDED:

- **Graph paper! All work for all assignments must be done on graph paper. No exceptions!**
- Pencil(s)
- Scientific Calculator (TI84 **highly recommended.** No TI-89 or cellphones)
- **Access Code to My Math Lab (Pearson)**

ATTENDANCE AND TARDY POLICY

- Students are expected to attend all class meetings, be on time, and be in class the **entire** class session.
- The only excused absences are those due to a school-related activity or a requirement to appear in court. Calling me to tell me you will be absent **does not** excuse the absence.
- Students are expected to be on time. It is distracting, rude and unfair to fellow classmates and to the instructor when a student is late. **Two tardies will be counted as an absence.**
- If a student arrives late, it is his/her responsibility to inform the instructor **after class** so that the absence can be changed to a tardy.
- A student who misses **four (4) class sessions** in the first 4 weeks of this 9-week course **may** be dropped from the course. However, if a student decides to no longer be enrolled in the course, it is the **student's responsibility** to make the drop official in the Admissions and Records office or else possibly receive a grade of F.

Attendance Grade: Since attendance is not optional, it will be counted as part of your grade. You will receive an attendance grade after each exam throughout the semester with each attendance grade worth 10 points. Each absence will cost you two of those points and each tardy reduces your score by 1 one point.

HOMEWORK:

- Homework assignments are completed online and the assignments can be found at the *My Math Lab* website, www.pearsonmylabandmastering.com.
- Late online homework will lose **25%** of the points possible ***for every day it is late***.
- All online homework problems are to be written out and worked out completely **on graph paper** (see materials list above) and in pencil.
- The written work for the online homework will be due on the next class day after it is due online.
- **No late written homework will be accepted.**
- Written work will be graded for completeness, neatness and accuracy.

- **Math Center Requirement**: A part of your homework grade will be a mandatory one hour in the Math Center (FEM-1) or the Tutorial Center. This will be worth 10 points per week. You will need to log in to and out of the math center or tutorial Center and I will receive a weekly report showing your attendance in either location.

Homework (including the Math Center requirement and your attendance grade) will count for 20% of your grade.

QUIZZES:

There will be an online quiz at the end of each chapter. All written work for the quiz will be due on the next class day after the quiz was due online.

Quizzes will count for 20% of your grade.

EXAMS:

- There will be 3-4 exams, worth 100 points each.
- There are **NO MAKEUPS** for missed exams. **NO EXCEPTIONS**!!
- *If you absolutely <u>must</u> be absent on the day a test is scheduled, you may discuss with me the possibility of taking the test **early**.*

FINAL EXAM:

A two hour comprehensive final exam worth 100 points will be given on the last day of this 9 week course. This final exam may be used to replace a low exam score or a missed test. The final may **not** be used to replace the homework grade.

GRADING:

- **Homework** (including attendance and Math Center grade) will represent 20% of the final course grade.

- **Quizzes** will represent 20% of the final course grade.

- The **exams and the final exam** will represent 60% of the final course grade.

Example: If your homework average is 92 and quiz average is 85, and the average of your exams and final is 78, then you would compute your grade as follows:

$$(.20)(92) + (.20)(85) + (.60)(78) = 18.4 + 17 + 46.8 = 82.2$$

- Your grade will then be determined by the following **grading scale**:

89.5% - 100% = A   79.5% - 89.4%= B   66.5% - 79.4%= C   54.5% - 66.4% = D   0 % - 54.4%= F

Mar. 14, 2016	**Deadline to be enrolled in My Math Lab**
Mar. 18, 2016	**Last day to add this 9- week class**
Mar. 19, 2016	**Deadline to be PERMANENTLY enrolled in My Math Lab**
Mar. 21 – 25, 2016	**Spring Break – No classes**
Mar. 31, 2016	**Last day to file for P/NP grading basis**
April 13, 2016	**Last day to drop (receive a W)**
May 16, 2016	**FINAL EXAM: 10:00 – 11:50, FEM-4**

Academic Dishonesty: Academic dishonesty <u>in any form</u> is a very serious offense
and will incur serious consequences, including but not limited to receiving a grade of F
in the course. For the college policy on cheating and plagiarism see the college catalog.

> *NOTE: If you have a verified need for an academic accommodation or materials in alternate media per the Americans with Disabilities Act or Section 504 of the Rehabilitation Act, please contact me as soon as possible.*

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COURSE OBJECTIVES

In the process of completing this course, students will

1. Graph functions and relations in rectangular coordinates and polar coordinates.
2. Synthesize results from the graphs and/or equations of functions and relations.
3. Apply transformations to the graphs of functions and relations.
4. Recognize the relationship between functions and their inverses graphically and algebraically.
5. Solve and apply equations including rational, linear, polynomial, exponenetial, absolute value, radical and logarithmic and solve linear, nonlinear, and absolute value inequalities.
6. Solve systems of equations and inequalitities.
7. Apply functions to model real world applications.
8. Identify special triangles and their related side and angle measurements.
9. Evaluate the trigonometric function of an angle given in degree and radian measure.
10. Manipulate and simplify a trigonometric expression.
11. Solve trigonometric equations, triangles and applications.
12. Graph the basic trig functions and apply changes in period, phase and amplitude to generate new graphs.
13. Prove trigonometric identities.

Course Content

1. Functions including linear, polynomial, rational, radical, exponential, absolute value, logarithmic, trigonometric; definitions, evaluation, domain and range.
2. Inverses of functions.
3. Algebra of functions.
4. Graphs of functions including asymptotic behavior, intercepts, and vertices.
5. Transformations of quadratic, absolute value, radical, rational, logarithmic, exponential functions
6. Equations including rational, linear, radical, polynomial, exponential, trigonometric, logarithmic, and absolute value.
7. Linear, nonlinear, and absolute value inequalities.
8. Systems of equations and inequalities.
9. Characterization of real and complex zeros of polynomials.
10. Unit circle and right triangle trigonometry.
11. Trigonometric and inverse trigonometric identities and formulas.
12. Graphing trigonometric functions: period, amplitude, phase shift, inverse trigonometric functions.
13. Polar coordinates.