

## Math 4B WEB: Precalculus - Summer 2015

**Instructor:** Walid Tayar

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**Schedule #:** 78064

COURSE ID for MyMathLab: tayar74524

### MANDATORY MEETING DATES:

Midterm: 6/30/2015 TUES from 4-6pm in Room FEM 12 at Reedley College

Final: 7/30/2015 THURS from 4-6pm in Room FEM 12 at Reedley College

### Prerequisites:

Math 4A. Basic skills advisories: Eligibility for ENGL 125 and ENGL 126

### Catalog 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.

### Optional Text and Mandatory Access Code:

Precalculus Essentials 4th Edition, Blitzer



You can buy the bundled textbook (which includes the textbook and access code for MYMATHLAB) at the Reedley College Bookstore. Be careful, once you open the kit you will not be able to return the book for a full refund. You can also purchase the access code by itself, without the book. The book is available electronically through the website. All of the work for this class will be done on a website called MyMathLab for which you will need the access code. **Another option would be to purchase the access code directly through MyMathLab (you will need a credit card for this option).** More information on how to register will be discussed later.

**WHEN SETTING UP YOUR ACCOUNT ON MYMATHLAB, USE YOUR 7-DIGIT REEDLEY COLLEGE ID AS YOUR USERNAME (0123456)**

**YOU MUST BE REGISTERED ON MYMATHLAB BY THE END OF THE DAY ON MONDAY, JUNE 8<sup>TH</sup> OR YOU WILL BE DROPPED! NO EXCEPTIONS!!**

**IF YOU ARE USING THE TEMPORARY ACCESS CODE, YOU MUST PAY FOR ACCESS NO LATER THAN THE END OF THE DAY ON MONDAY, JUNE 22<sup>ND</sup> OR YOU WILL BE DROPPED! NO EXCEPTIONS!**

### **Blackboard:**

This course will utilize blackboard for announcements, lecture notes, 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 Materials:**

- Scientific Calculator – non-graphing (TI-30XIIS or similar)
- Ruler/pencils
- Two spiral grid paper notebooks Cambridge brand from bookstore for homework. You might be able to squeeze your homework into one but I would suggest grabbing an extra just in case. No other notebook will be accepted !

### **Mead®Cambridge Quad Wirebound Notebook**

You can order it online or purchase from the bookstore at Reedley College. It must be an 8.5x11 graph paper notebook.



### **Online Homework:**

Online homework assignments are completed online and the assignments can be found at the MyMathLab website. You may work ahead if you like. Each assignment has a due date. Homework will not be accepted late, but the two lowest homework scores will be dropped to allow for any emergencies or missed assignments. You can complete any past due assignments and earn 50% credit on the past due problems. If you do not successfully complete (70% or better) two homework assignments in a row you may dropped. This amounts to about a week of inactivity and non-participation in an 8-week course. 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 as long as you do so before the deadline.

**MOST OF YOUR HOMEWORK WILL BE DUE ON MONDAYS, WEDNESDAYS, AND FRIDAYS EXCEPT FOR THE CHAPTER REVIEWS WHICH WILL BE DUE ONLINE ON THE DAY OF THE EXAMS.**

**Notebook:**

You will be required to keep all of your written work from your online homework assignments in a notebook. 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. Your final answer for each problem needs to be circled or boxed in. Make sure to write out each problem and solution. Any graphing problems need to be written out and graphs must be drawn in the notebook with the appropriate labeling. **Word problems do not need to be written out.** The required notebook can be purchased at the book store. This will be a part of your notebook grade and will be due on the day of the final. I will not accept the notebook late.

**SEE THE ATTACHED NOTEBOOK EXAMPLE ON THE LAST PAGE**

**Attendance:**

Students are expected to attend all scheduled class meetings, and be on time. The doors will be locked at the beginning of class so be there early. I will not allow you to take the midterm if you are late and you will get a 0. 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, MP3 players, head phones 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. Leaving class at anytime will not be allowed. Please use the restroom/make phone calls before class or at the designated break times.

**Midterm:**

There will be a midterm on June 30<sup>th</sup>. There are no make-ups for a missed midterm. No exceptions. Calling the day of the midterm and telling me that you cannot make it to class is inexcusable. **There will be no other dates/times to take the midterm so if this doesn't work for you, then I suggest you find another class.**

**Final Exam:**

A final exam will be given on July 30<sup>th</sup>. The same rules apply for the final as above (see midterm).

ALL CELLPHONES/ELECTRONICS ARE TO BE COMPLETELY OUT OF SIGHT AND TURNED OFF DURING THE EXAMS OR YOU WILL RECEIVE A 0% ON THAT EXAM AND IT WILL NOT BE DROPPED OR REPLACED BY THE FINAL EXAM SCORE. THIS WILL BE COUNTED AS CHEATING (SEE CHEATING POLICY BELOW). NO EXCEPTIONS!!!

**Grading:**

- The online homework will be worth 20% of your overall grade
- The notebook will be worth 5% of your overall grade
- The Midterm and Final will be worth 75%

**Percent**

90 - 100

**Grade**

A

80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

**Outline:**

1. 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.
2. Solve the following types of equations; polynomial, rational, absolute value, trigonometric, logarithmic and exponential.
3. Identify the solution set for inequalities with absolute value, polynomials and rational expressions.
4. Set-up and solve mathematical modeling problems including; interest problems, exponential growth and decay, and motion problems.
5. Learn the analytic aspects of trigonometric functions of right, acute and related angles.
6. Derive basic trigonometric identities and use them to simplify trigonometric expressions and solve trigonometric equations.
7. Apply the unit circle to trigonometry and perform angle conversions.
8. Memorize the trigonometric values of the fundamental angles.
9. Apply the analytic aspects of inverse trigonometric functions and trigonometric formulas to simplify and solve trigonometric problems.
10. Find the inverse of one-to-one functions, and graph the function and it's inverse.
11. Convert between polar and rectangular coordinates, as well graph functions and relations in polar coordinates.

**Special Needs Requests:**

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.

**Academic Dishonesty**

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is

expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

**Cheating** is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

**Plagiarism** is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

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

## Section 6.1

① Find the greatest common factor

$$77 = 7 \cdot 11 \quad \text{GCF} = \boxed{7}$$
$$343 = 7 \cdot 7 \cdot 7$$

②

$$66 = 2 \cdot 3 \cdot 11$$
$$78 = 2 \cdot 3 \cdot 13$$
$$\text{GCF} = 2 \cdot 3 = \boxed{6}$$

③

$$12 = 2 \cdot 2 \cdot 3$$
$$28 = 2 \cdot 2 \cdot 7$$
$$24 = 2 \cdot 2 \cdot 2 \cdot 3$$
$$\text{GCF} = 2 \cdot 2 = \boxed{4}$$

④

$$a^6$$
$$a^8$$
$$\text{GCF} = \boxed{a^6}$$

⑤

$$a^2b^2$$
$$a^3b^6$$
$$\text{GCF} = \boxed{a^2b^2}$$

⑥

$$55 = 5 \cdot 11 \quad x^3$$
$$35 = 5 \cdot 7 \quad x^2$$
$$\text{GCF} = \boxed{5x^2}$$

⑦

$$3y - 6 = \boxed{3(y-2)}$$

⑧

$$14a^2 + 3a = \boxed{a(14a+3)}$$

⑨

$$315x^2 + 105x + 21$$
$$315 = 3 \cdot 3 \cdot 5 \cdot 7$$
$$105 = 3 \cdot 5 \cdot 7$$
$$21 = 3 \cdot 7$$
$$\text{GCF} = 21$$

$$\frac{315x^2}{21} + \frac{105x}{21} + \frac{21}{21}$$
$$\boxed{21(15x^2 + 5x + 1)}$$