Spring 2010
Math 860
Intermediate Algebra

CRN 71765 07:10 - 08:00AM Daily
Section 001 Batmale Hall 713

Instructor: Mary Bravewoman

Office: Batmale Hall 764

Phone: 415.239.3362

Email: mbravewo@ccsf.edu

Office Hours: Tuesday & Thursday 10-11 AM, and by appointment.

Prerequisite: Successful completion of Math 840 or placement in Math 860

Required textbooks: Intermediate Algebra, Fourth Edition, Tussy & Gustafson.

Course Objectives: Algebra is a language used to represent mathematical relationships. The purpose of an Intermediate Algebra course is to reinforce the use and rules of this language and strengthen your skills in working in that language. Students will also have the opportunity to develop their ability to use algebra to model real life situations and to justify their reasoning, as well as:

- Find real numbers on a number line.
- Compute absolute values, sums, differences, products, quotients, and integer powers of real numbers, and interpret results geometrically on a number line.
- Develop algebraic expressions using variables and evaluate the expression using the order of operations.
- Compute sums, differences, products, quotients, and integer powers of polynomials.
- Factor polynomials.
- Simplify rational expressions.
- Compute sums, differences, products, quotients, and integer powers of rational expressions.
- Simplify radical and rational exponent expressions.
- Compute sums, differences, products, quotients, and integer powers of radical or rational exponent expressions.
- Compute sums, differences, products, and quotients of complex numbers.
- Formulate equations and inequalities from verbal descriptions.
- Solve linear, quadratic or quadratic in form, absolute value, rational and radical equations.
- Solve linear, quadratic or quadratic in form, absolute value, and rational inequalities.
- Simplify integer exponent expressions and radical expressions.
- Graph and describe absolute value, linear, rational, and quadratic equations.
- Graph and describe circles.
- Use the distance formula.

- Solve systems of two linear equations using the methods of elimination, substitution, and graphing.
- Interpret and check the solutions of an equation or system of equations.
- Use these concepts and techniques to solve applied problems.
- Build a mathematical community and develop study skills to be successful in college.
- Discover a joy of doing mathematics and have fun!

Tentative Order of Course Topics:

Chapter 1: A Review of Basic Algebra (This is only a review)
Sections 1.5-1.8
Chapter 2: Graphs, Equations of Lines, & Functions
Sections 2.1-2.5
Chapter 5: Exponents, Polynomials, and Polynomial Functions
Sections 5.1-5.9
Chapter 8: Quadratic Equations, Functions, and Circles
Sections 8.1-8.4 & 10.1
Chapter 6: Rational Expressions and Equations
Sections 6.1-6.9
Chapter 7: Radical Expressions and Equations
Sections 7.1-7.7
Chapter 4: Inequalities
Sections 4.1-4.3 & 8.5
Chapter 9: Exponential and Logarithmic Functions
Sections 9.3- 9.5
Chapter 3: Systems of Equations
Sections 3.1-3.3

Important Dates: Students, who drop after **September 9, 2010,** will receive a W grade. The last day to withdraw is **November 18, 2010.** If you decide to drop, complete the drop process yourself. *A student who stops attending class (even early in the term) may receive a grade of F if the drop process is not completed.*

Disabled Student's Programs & Services (DSPS): Students with disabilities needing reasonable accommodations are encouraged to speak with me as soon as possible, as well as contacting DSPS. The Disabled Student Program and Services is designed to equalize the educational opportunities for students with disabilities. The office is located in Rosenberg Library - R323 and is open:

Monday, Wednesday 7:50 am to 4:30 pm
Tuesday and Thursday 7:50 am to 7:00 pm
Friday 7:50 am to 3:00 pm
Saturday 9:00 am to 1:45 pm

Call 415-452-5481 or 415-452-5451 TDD for more information

Class Policies & Grading:

Learning Assistance Center (LAC) 2%: You are required to attend the LAC one hour each week; a total of 16 hours for the semester. Students who complete fewer than 16 hours will not receive the 2% credit for LAC participation. The LAC is located in **Rosenberg Library 207**, and is open **Mon-Thurs. 8 AM-8:45PM; Fri. 8AM- 4:45PM; Sat. 9AM- 4:45PM**

Attendance 3%: Attendance is part of your final grade. Thus, attendance is Mandatory and will be taken daily. Students with excessive absences may be dropped. You will be allowed 3 excused absences for the semester, any more than that and you will not receive the 3% credit for attendance. However, if you have a good reason for missing class, be sure to talk to me about it. You can always reach me by email or leave a message on my office voicemail if you cannot meet with me in person. You are responsible for all material covered in class, even if you must be absent for an emergency.

Homework 15%: Homework is by far the most important aspect involved in mastering the material, thus assignments will be given daily, and should be completed before the next class meeting. Homework will be done using WebAssign, as well as by hand. Completed homework should be kept in a 3-ring binder. Homework should follow the guidelines on the next page. To register for WebAssign, follow logon to www.webassign.com, choose the "Students" tab and follow the prompts. Our class key is **ccsf 5942 4044**
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Exams 55%: There will be up to nine exams in addition to the final. We will use a variety of testing methods including group, online, and take-home exams, as well as traditional exams. Take-home exams will be given out at the end of the class and are due at the **beginning** of the **next** class meeting. ***No late papers will be accepted*** without prior arrangements. There will be **no make up exams** given without prior arrangement and compelling reasons.

Final exam 25%: The final will be comprehensive and is scheduled for **Wednesday December 15, 2010** from **7AM – 10AM.** The final **MUST** be taken in order to pass the class. **THERE WILL BE NO RESCHEDULING OF THE FINAL EXAM**; please DO NOT schedule your vacation plans to begin before this date!

Supplies: You will need a 3-ring binder for homework as well as a class notebook, a ruler, *Sharp* pencils, an eraser, a stapler, lined paper 3-hole punched (**NOT** SPIRAL bound), graph paper, and a ruler. You may also want to buy 3X5 index cards to use as study cards.

Email & Online Access: I will be communicating with the class via the internet/email, thus everyone MUST register an email address with the college. If you did not do so when you registered for school, you can do this from the CCSF website. Go to the home page and use the **Online Records** link, log on to the secure page and choose the **Personal Information** link, finally choose **update email addresses. Our Class blog is at http://bravewoman.wordpress.com**

A note about Homework:

I cannot over emphasize the importance of homework. Practice is the only way you are going to master this material, and this means you are going to be doing a lot of homework. The purpose of this is to:

- ✓ Practice the skills we cover in class.
- ✓ Evaluate what you understand.
- ✓ Identify the topics you need to get a better grasp on.

I encourage you to work together outside of class. Helping each other with homework is very acceptable. However, everyone must write up his or her own work. You should get in the habit of following the guidelines below for completing written homework. You will find it is easier to keep track of your errors and will better prepare you for the tests.

Guidelines for completing written homework:

- ✓ Homework should be neatly written on lined or graph paper.
- ✓ Homework must be maintained in a homework binder, labeled with your name and class section number
- ✓ Each problem set should have a heading with the assignment/section numbers
- ✓ All instructions must written out, and problems should be numbered
- ✓ Follow complete instructions and write out the original problem as it appears in the text or handout
- ✓ All work must be shown; answers only receive no credit
- ✓ All work must be legible
- ✓ Work must be completed in the order assigned
- ✓ All graphs must be on graph paper and drawn with a ruler
- ✓ A problem asked in words must be answered with complete sentences

A note about Calculators: You will occasionally need to use a scientific calculator in this class. However, you will most often not be allowed to use them on your exams, and I recommend that you do not become dependent on them to do your homework. Even when we do use a calculator, **exact answers will be required as well as decimal approximations.** Graphing Calculators, iPods, Smart Phones, etc. are ***never*** allowed.