**Math 120**

**Intermediate Algebra (online)**

**Spring 2014**

**instructor:** Gary Church

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**Office Hours:** 9:00–10:00 and 12:00–1:00 daily

**Textbook:** Tussy & Gustafson; *Intermediate Algebra, 4th ed.*

**Prerequisites:** Satisfactory completion of math 110 or 112 or appropriate score on the college placement test and other measures as appropriate.

**WebAssign:** This is the online tool that will be used to learn the material in the course syllabus. In order to use WebAssign, you will need a computer (pc or mac) with a reasonably fast internet connection, and a recent version of the web-browsers Internet Explorer, Safari or Firefox; I recommend you use either IE or Safari as I’ve had some problems using WebAssign with Firefox. In addition, you will need to purchase a semester license code for WebAssign. You can either buy the textbook (*Intermediate Algebra, 4th ed.* by Tussy & Gustafson) bundled with the enhanced WebAssign cd and semester license code or buy the semester license code online. If you don’t mind reading a textbook online, you can save some money by buying the license code online.

Details can be found by reading the document at: [http://www.smccd.edu/accounts/churchg/spring2014/math120hsh/webassignselfenrollment.pdf](http://www.smccd.edu/accounts/churchg/spring2014/math120hsh/webassignselfenrollment.pdf)

If you decide to buy the license code online, be sure to get the code for the "lifetime of edition access to ebook and homework" version. It costs $75.00 and will include an electronic copy of the complete textbook. If you can’t afford to buy the textbook or code or are unsure if you will remain in the course, you are given approximately two weeks of free time on WebAssign before having to purchase the license code.

**homework:** This course moves quickly and there is lots of material to cover. Consequently, you will need to devote a lot of time to study (reading the text, watching videos, working practice problems, etc.) and doing the assigned homework. You should expect to spend approximately ten hours per week or more doing these activities. You can track when assignments (homework or chapter tests) are due by consulting the calendar available within WebAssign.

Since answers in WebAssign are scored on a right/wrong standard, you are given up to five attempts on each problem to get the correct answer. You are not penalized for the first two incorrect responses but attempts after the second are penalized by 25% of the value of the problem; It is important, therefore, to do your best to get the correct answer on the first or second attempt.

Also, should you fail to complete a homework assignment by the due date, you are allowed to request one automatic extension of the assignment. This request must be made within two days of the original due date of the assignment, must be completed within three days of the request and you will be penalized 30% of the value of any of the problems not completed by the original due date. The request is made from within WebAssign; select the overdue assignment within two days after its due date and a window will open allowing you to request an extension.

**Hours by Arrangement:** As indicated in the schedule of classes, in addition to normal class duties (attending class, asking questions, studying, doing homework, etc.) you are expected to complete 16 “hours by arrangement” this semester. You will be given 16 activities to be completed each week. These activities are scored and counted in your grade average. More information about the MRC can be found below.

**Chapter Tests:** After you’ve finished the sections assigned in each chapter, you will need to do the assigned WebAssign chapter test. Each test will be available three days before the due date for the chapter. To prepare for the test, you can work problems from the Personal Study Plan (PSP) available within WebAssign. These problems are considered self-study and aren’t counted in your grade. The test will be timed, giving you between 60 and 120 minutes to complete the test (the time based on the length of the test and the nature of the questions on the test.) Once you begin the test, you must complete it in the allotted time; you can’t log off and resume the test later. Therefore, before sitting for the test, be sure you have sufficient quiet and uninterrupted time available to you. You are expected to work the problems on the test without aid of text, notes, family or friends. You are allowed a standard scientific calculator. You will be given three attempts at each problem, with no penalties for a wrong first
or second attempt but a 30% penalty if you get the problem right on the third attempt and zero points if you are unable to answer the problem correctly in three attempts.

**MRC:** If you need tutorial help and I’m not available, you can get help from the tutors in the Math Resource Center (MRC). More information about the MRC can be found at: http://www.smccd.net/accounts/csmmrc/

**Calculator:** You are required to have a scientific calculator for use in this class. I strongly recommend one of the TI graphing calculators (TI-83, TI-83+, TI-84 or TI-84+).

**Grading:** Your grade will be based on homework, chapter tests, the midterm and final exams. The homework and chapter tests will be done online within WebAssign. The midterm and final exams will be done on campus at CSM. The dates and times for the midterm and final exams are:

- **Midterm Exam:** Saturday, March 15, 10:00–12:30.
- **Final Exam:** Saturday, May 17, 10:00–12:30.

All on campus meetings will be held in the computer lab in building 19, room 124.

Your scores on these categories will contribute to your semester grade according to the following weights.

- Homework/HBA: 20%
- Chapter Tests: 20%
- Midterm Exam: 30%
- Final Exam: 30%

The final letter grade is calculated as a percentage of the weighted scores based on the ranges:

- A = 100—90
- B = 89—80
- C = 79—70
- D = 69—60
- F = 59—00

A grade of “I” (incomplete) will be given only in the case of an emergency situation.

**Important dates:**

- Last day to add or to drop with possible class fee refund: Mon., Jan. 27.
- Last day to drop with no mention of course on transcript: Sun., Feb. 2.
- Last day to drop with a guaranteed “W” grade: Th., April 24.
  No “W” grades will be given after this date! Please bring me a drop slip if you decide to drop the class.

**Student Learning Outcomes for Math 120**

Upon completion of this course the student should be able to:

1. Identify and apply basic algebraic concepts including domain, range, slope, absolute value, scientific notation, equivalent equations, laws of exponents, intercepts, parallel lines, perpendicular lines, horizontal lines, and vertical lines.
2. Solve systems of linear equations in three unknowns using elimination and substitution.
3. Solve equations and inequalities in one or two variables and involving absolute values.
4. Solve quadratic equations by factoring, completing the square, and quadratic formula.
5. Solve exponential and logarithmic equations.
6. Solve equations involving radicals.
7. Perform basic operations on complex numbers.
8. Solve equations involving radicals.
10. Sketch the graphs of functions and relations:
    (a) algebraic, polynomial and rational functions
    (b) logarithmic functions
    (c) exponential functions
11. Find and sketch inverse functions.
12. Problem solve by application of linear and quadratic functions.
13. Apply the concepts of logarithmic and exponential functions.
14. Apply the properties of and perform operations with radicals.
15. Apply the properties of and perform operations with rational exponents.
16. Graph linear and quadratic functions.
17. Graph linear inequalities in two variables.
18. Find the distance between two points.
19. Find the midpoint of a line segment.