Course Syllabus
MATH 143 College Algebra
3 Credit Hours

Semester/Year: Spring 2008
Instructor: Bill Eberlein
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Office Location: Shields 206C
Office Hours: M-F 10 AM Shields 206C
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Course Description: This course includes fundamental concepts of Algebra; equations and inequalities; functions and graphs; polynomial, rational, exponential and logarithmic functions; systems of equations and inequalities; conics; the Binomial Theorem.

Prerequisite: Math 108 with a ‘C’ or better, or placement test score.
(COMPASS Algebra 62 or higher, ACT Math 23 or higher)


Equipment: Calculator with Log and Exponential functions required. A graphing calculator is recommended.

Course Objectives: Students who complete Math 143, College Algebra, will have a strong understanding of the topics listed in the course description. This course will prepare students for Math 144, Math 157, Math 160, Math 253 and other courses which have a College Algebra pre-requisite.

Outcomes Assessment: Students will be assessed through homework, chapter exams and a final exam at the end of the semester.

A common final exam will be administered to all sections of Math 143. Each test question will be statistically analyzed

“As part of departmental analysis of outcomes in this course and its place in the Mathematics program, student completion of the pre-requisite, success in the current course, success in subsequent courses and student satisfaction will be reviewed by the instructor. A report containing this information will be submitted by department faculty to determine what, if any, changes can be made to improve the course in terms of content, focus, and instruction.”

Expected Outcomes:

- Master course content.
- Engage in mathematical problem solving.
- Apply mathematics to real world situations.
- Expand mathematical reasoning skills.
- See that mathematics connects to other disciplines.

This syllabus is tentative and subject to change.
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Expected Outcomes continued:

- Display use of appropriate technology to enhance mathematical thinking, understanding, and problem solving.
- Develop skills in working with peers to solve mathematical problems.
- Communicate mathematically.

Methods:
Each student has an individual learning style. It may be helpful to explore the techniques listed below to learn something about your learning style and maximize your experience in this class.

- Textbook study
- Lecture and explanation from the instructor
- Class discussion
- Help from the instructor outside of class
- Computer based supplemental material

Policies and Procedures:
This class meets every Monday, Wednesday and Friday for lecture. Attendance will be taken every day. A class missed due to required participation in a verified school activity will not be considered an absence. You are responsible for everything presented in class whether you are there or not. The instructor will drop no-shows after the first two weeks of class. Students still enrolled after April 4th will receive a letter grade for the class.

Homework will be assigned for every section we cover. We will generally cover one section per day. Homework will be collected weekly on the first day class meets each week. It must be turned in by 3 PM to avoid late penalties. Late homework will be accepted until the exam over the homework material has closed. Late homework will be penalized ½ point per problem. Each homework problem is worth 2 points.

The percentage of points earned on the homework will be equivalent to one test score. The homework percentage will be based on the highest individual homework total.

There will be five semester exams and a comprehensive final. Each semester exam is worth 100 points. The final is worth 200 points.

All exams except the final will be given at the Testing Center on the second floor of the Meyerhoffer building. They will be available over a 3-day period beginning the day we review the test material in class. An optional comprehensive make-up exam...
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will be available the last week of class for students who miss an exam during the semester or for those who wish to replace a low test score.

Testing Center Hours: 
M-R 8 AM – 9:30 PM
F 8 AM – 5 PM

Your grade in this class will be determined by a) homework, exam, and final exam points; or b) the final exam score, whichever is higher.

Letter grades will be determined using the following percentages:
90-100 A, 80-89 B, 70-79 C, 60-69 D, <60 F

Any student caught cheating will receive a NO CREDIT for the course and a notice of probation will be placed on the student’s permanent transcript.

Students are encouraged to review all Policies described on pages 14, 15, and 16 of the 2007-2008 CSI catalog.

On-line course Evaluation:

Students are strongly encouraged to complete evaluations at the end of the course. Evaluations are very important to assist the teaching staff to continually improve the course. Evaluations are available on-line at: http://evaluation.csi.edu. Evaluations open up two weeks prior to the end of the course. The last day to complete an evaluation is the last day of the course. During the time the evaluations are open, students can complete the course evaluations at their convenience from any computer with Internet access, including in the open lab in the library and in the SUB. When students log in they should see the evaluations for the courses in which they are enrolled. Evaluations are anonymous. Filling out the evaluation should only take a few minutes. You honest feedback is greatly appreciated!
Student e-mail Accounts

E-mail is the primary source of written communication with all CSI students. Students automatically get a CSI e-mail account when they register for courses. Messages from instructors and various offices such as Admissions and Records, Advising, Financial Aid, Scholarships, etc. will be sent to students’ CSI accounts (NOT their personal e-mail accounts). **It is the student’s responsibility to check their CSI e-mail accounts regularly.** Failing to do so will result in missing important messages and deadlines. Students can check their CSI e-mail online at [http://students.csi.edu](http://students.csi.edu). Student e-mail addresses have the following format: `username@students.csi.edu`. At the beginning of each semester free training sessions will be offered to students who need help using their CSI e-mail accounts.

Disabled Students:

Any student with a documented disability may be eligible for related accommodations. To determine eligibility and secure services, students should contact the coordinator of Disability Services at their first opportunity after registration for a class. Student Disability Services is located on the second floor of the Taylor Building on the Twin Falls Campus. 208.732.6260 (voice) or 208.734.9929 (TTY), or e-mail cmumford@csi.edu.
Course Syllabus

CLASS SCHEDULE

Week 1  1  Syllabus and Chapter P
       2  Section 1.1 Graphs of Equations
       3  Section 1.2 Linear equations in one variable

Week 2
       4  Martin Luther King Jr Day
       5  Section 1.3 Modeling with linear equations
       6  Section 1.4 Quadratic eqns and applications

Week 3
       6  Section 1.5 Complex numbers
       7  Section 1.6 Other types of equations
       8  Section 1.7 Linear inequalities in one variable

Week 4
       9  Section 1.8 Other inequalities
      10  Review/Exam 1
      11  Section 2.1 Linear eqns in two variables

Week 5
      12  Section 2.2 Functions
      13  Section 2.3 Analyzing graphs of functions
      14  Section 2.4 A library of parent functions

Week 6
      15  Presidents Day
      16  Section 2.5 Transformations of functions

Week 7
      17  Section 2.7 Inverse functions
      18  Review/Exam 2
      19  Section 3.1 Quadratic functions and models

Week 8
      20  Section 3.2 Polynomial fcns of higher degree
      21  Section 3.3 Polynomial and synthetic division
      22  Section 3.4 Zeros of polynomial functions

Week 9
      23  Section 3.5 Modeling using variation
      24  Review/Exam 3
      25  Section 4.1 Rational functions and asymptotes

Spring Break

This syllabus is tentative and subject to change.
| Week 10  | 26 | Section 4.2 Graphs of rational functions |
|         | 27 | Section 4.3 Conics                        |
|         | 28 | Section 4.4 Translations of conics         |
| Week 11 | 29 | Review/Exam 4                            |
|         | 30 | Section 5.1 Exponential functions and graphs |
|         | 31 | Section 5.2 Log functions and graphs      |
| Week 12 | 32 | Section 5.3 properties of logs            |
|         | 33 | Section 5.4 Exponential and log equations |
|         | 34 | Section 5.5 Exponential and log models    |
| Week 13 | 35 | Section 6.1 Linear & nonlinear systems    |
|         | 36 | Section 6.2 Two variable linear systems   |
|         | 37 | Section 6.3 Multivariable linear systems  |
| Week 14 | 38 | Review/Exam 5                            |
|         | 39 | Section 6.5 Systems of inequalities      |
|         | 40 | Section 6.6 Linear programming            |
| Week 15 | 41 | Section 8.5 The Binomial theorem          |
|         | 42 | Review/Class Evaluation                  |
|         | 43 | Review for Final                         |

Final Exams:

9 AM Class: Wednesday May 7, 8 AM
11 AM Class: Wednesday May 7, 12 Noon
1 PM Class: Tuesday May 6, 12 Noon

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Math 143 Homework Assignments Spring 2007  Eberlein

Chapter P  Page 70  1, 5, 9, 13, 17, 21, 24, 29, 33, 37, 41, 45, 53, 57, 61, 65, 69, 73, 77, 81, 85, 89, 93, 97, 101, 105, 109, 113, 117

Section 1.1  Page 86  3, 7, 9, 11, 13, 15, 19, 23, 29, 35, 39, 43, 47, 51, 53, 55, 57, 61

Section 1.2  Page 94  3, 9, 13, 17, 31, 35, 37, 45, 49, 55, 61, 63, 69, 71, 77, 83, 87, 93, 99

Section 1.3  Page 105  13, 17, 21, 25, 27, 31, 35, 39, 41, 51, 55, 61, 67, 73, 77, 83, 91

Section 1.4  Page 120  3, 5, 11, 17, 19, 27, 33, 39, 43, 47, 53, 61, 63, 65, 79, 85, 89, 97, 101, 103, 107, 115, 133

Section 1.5  Page 131  3, 7, 13, 19, 23, 29, 35, 39, 41, 47, 53, 57, 61, 69, 73, 77, 85

Section 1.6  Page 140  7, 11, 17, 23, 27, 35, 41, 47, 51, 55, 59, 63, 69, 71, 77, 87, 91, 99

Section 1.7  Page 150  3, 7, 11, 15, 17, 23, 31, 39, 49, 57, 65, 71, 77, 91, 93

Section 1.8  Page 161`3, 17, 23, 29, 33, 41, 49, 51, 57, 65, 67, 71

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More assignments will be published by 2/1/08

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