

Blue Ridge Community and Technical College
Fall 2007 / Course Syllabus
Math 101 Intro to Mathematics, Section 70, CRN 30105

1. INSTRUCTOR INFORMATION:

Name: Conrad Lotze
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Office Location: C-08, Dunn Building
Office Hours: Tuesdays: 3:00-5:00 p.m.
Thursdays: 3:00-5:00 p.m.
And by appointment.

2. TEXTBOOK:

Thinking Mathematically, 4th Edition, By Robert Blitzer - ISBN: 0-13-6005012 (This includes a 'study pack.')

3. COURSE DESCRIPTION:

Topics to be covered include sets, mathematical logic, solving systems, systematic counting, and probability. Mathematics history, critical thinking skills, problem solving, and the use of technology will also be incorporated throughout the course.

4. COURSE OBJECTIVES:

The successful completion of the course is intended to fulfill the Math 100 level requirement specified in the A.A. Liberals Arts degree. Course objectives include:

- Student understanding and application of mathematics in computation, as well as analysis and problem solving
- Strengthen student perceptions of the relationship between course content and the diverse programs of study and professional disciplines.
- Incorporate the importance of individual student responsibility for acquisition of course content and skill performance.

5. STUDENT LEARNER OUTCOMES:

The student will be able to:

- Solve problems using the organization of the four-step problem-solving process.
- Perform set operations.
- Appreciate historical number systems.
- Discuss the Real Number System and its characteristics.
- Solve equations and inequalities.
- Analyze graphs, functions, and systems of linear equations.
- Solve applications in the areas of consumer mathematics, finance, measurement, and geometry.
- Understand theories of sets, counting, probability, and statistics.

6. PROGRAM ASSESSMENT:

The faculty members of BRCTC are dedicated to assuring that each student meets the educational objectives of the program. The educational objectives have been developed and are planned to assure that the program is producing graduates who will be successful in obtaining and maintaining positions in the entry-level business field and who will be quality employees. To achieve this goal, the faculty is committed to a systematic and comprehensive process of assessment of student learning. As part of this program assessment, students will from time to time asked to participate in non-graded assessment activities which may include, but are not be limited to, participation in role-playing simulations and completion of standardized written or practical examinations or pre and post graduation surveys.

7. ACADEMIC INTEGRITY:

Cheating in all its forms, including plagiarism and cheating on visual work, is considered an academic matter to be controlled and acted upon by the instructor of this course. Students guilty of academic dishonesty on any graded assignments in this course will be penalized with a grade of F in the course. Such action shall be taken by the

instructor, with written notification to the Dean of Academic Instruction at BRCTC. Students involved in facilitating academic dishonesty among others, such as the unauthorized dissemination of examination materials, will be subject to disciplinary action as well.

8. WITHDRAWAL FROM THIS COURSE:

The last day to withdraw from this course is November 9, 2007.

9. ATTENDANCE POLICY:

Students are expected to attend **ALL** classes. In the absence of student/instructor communication, all nonattendance is assumed to be unexcused. Class participation is pertinent for concepts to be learned. By not attending class, students miss the opportunity to engage in classroom activities, which could possibly affect the course grade. In the case of absence due to emergency, or participation in official college functions, it is the student's responsibility to confer with the instructor about the absence and missed course work. Excused absence is defined in the *Blue Ridge - CTC Student Handbook*. In addition to the narrowly defined circumstances found in the handbook, students may discuss their individual circumstances with their instructor. In this case, the instructor's decision regarding the excused/unexcused nature of the absence will be final.

11. COURSE INCOMPLETE:

The single greatest indicator of college course success is class attendance. As such, awarding a course grade of incomplete will be reserved for students with a passing (>70%) average who, for reasons beyond their control, have prolonged periods (weeks, not days) of excused absence. Examples of this type of absence shall include issues such as Family Medical Leave, Medical Incapacity, Jury Duty, Military Activation, Etc.

12. ADDITIONAL NOTES:

A. Time Commitment: For the average student, successful college course work requires an investment of 3 hours per week per hour of course credit. This is a three credit course. As such, in addition to classroom lectures, students should be prepared to invest **at least 9 additional hours per week** meeting the requirements for this course. Students are strongly encouraged to evaluate their commitments and available time resources and make any necessary adjustments. Addressing this issue early on will help ensure the best possible educational opportunity for everyone.

B. Calculators: The use of calculators is allowed in this course: Students must provide their own. Cell phones may NOT be used as a calculator. Calculators are allowed during all exams, including the final exam. I recommend the TI-82; 83; 83+; or 83 Silver Edition as good graphing calculators, however a graphing calculator is not required. (You may be able to find a used one on e-Bay.)

C. Special Needs Students: Students desiring or requiring accommodations to the standard course delivery and/or assessment policies are encouraged to speak with the Office of Multicultural Student Affairs and Disability Support Services at 304-260-1785. It is the student's responsibility to obtain proper documentation and to confer with the course instructor concerning the incorporation of appropriate accommodations. For those without documentation, please speak with Student Affairs.

13. GRADING POLICY:

The course grade will be calculated based upon a point system. 1000 total points will be available. Accumulation of points throughout the semester will determine the course grade. Below is the breakdown of the letter grade calculation:

900 – 1000 = A

800 – 899 = B

700 – 799 = C

600 – 699 = D

Less than 600 = F

Mid-Term Grades: Mid-term grades will be assigned based on a combination of graded assessments and instructor perception of student progress. Strict calculations based on student work may or may not be used in making this determination. Mid-term grades are simply a report of current student performance as assessed by the instructor and are not used in the calculation of the student's final course grade.

14. DETAILS OF COURSE ACTIVITIES:

Several assessed activities will contribute to the course grade. During the course of the semester, the instructor will conduct such activities as deemed necessary/appropriate to deliver the essential course content, meet the stated course objectives, and assess student progress.

1. Semester Exams = 500 points (5 @ 100 points each)

- Exam 1 = 100 points,**
- Exam 2 = 100 points,**
- Exam 3 = 100 points,**
- Exam 4 = 100 points,**
- Exam 5 = 100 points,**

Semester exams typically cover one or two chapters of text material and consist of approximately 25 questions. Scheduled exam dates are taken very seriously. Any missed exam will count as a zero unless a make-up is taken. One make-up exam is allowed, provided the absence was excused. The make-up exam must be taken before the next exam is given. Thereafter, any missed exam will be counted as a ZERO.

2. Homework = 100 points (5 @ 20 points each)

- Homework 1 = 20 points**
- Homework 2 = 20 points**
- Homework 3 = 20 points**
- Homework 4 = 20 points**
- Homework 5 = 20 points**

Homework for each section will be assigned during class meetings. If you miss a class, please get the assignment from a friend, or email me asking for it. Assigned homework will sporadically be collected throughout the semester. For each time the homework is collected, up to 20 points is possible. Accuracy, problem completion, consistency, and legibility are factors that will affect the homework grade. Late homework will NOT be accepted!!!

3. Quizzes = 100 points (4 @ 25 points each)

- Quiz 1 = 25 points**
- Quiz 2 = 25 points**
- Quiz 3 = 25 points**
- Quiz 4 = 25 points**

4. Semester Application project = 150 points

Near the end of the semester, application projects will be presented to the class. Groups will be assigned by the instructor. Each group must choose an application topic from the "Index of Applications" located on the inside cover of the textbook. Each topic for the group project must be approved by the instructor!

For each student, the 150 points will be calculated in a combined effort: up to 100 points possible can be earned for the individual grade and up to 50 points can be earned towards the group grade. EACH student is graded. Groups consisting of 3 – 5 students will be assigned by the instructor. Each project presentation must last approximately 10 - 15 minutes. Each student must turn-in a summary sheet outlining the 4 required components of the project.

Four components comprise the project:

1. Introducing, explaining, and describing the DETAILS of the project chosen to the class. The textbook and page number must be referenced.
2. Mathematical methods used and how the problem can be applied must be addressed and explained completely. Use of the white board, projector, and/or other classroom support must be utilized to receive full credit. ALL calculations must be shown and explained to the class.

3. Visual representation of the project must be demonstrated. PowerPoint, overhead projector, poster board, dry-erase Cartesian board, and/or other tools can be utilized. Preparation BEFORE class is expected. Requests for equipment and/or supplies must be given to the instructor AT LEAST 2 days prior to the date of presentation.
4. A hand-out must be included in the presentation. Copy requests must be made to the instructor AT LEAST 2 days before the presentation due date. The hand-out can include and is not limited to the following: project summary and calculation review, graphs, PowerPoint hand-out, and outline of the presentation.

5. **Final Exam = 150 points**

The final exam will be cumulative. One 8 x 10 sheet of notes is allowed. The final exam is Thursday, Dec. 13th, at

15. **Additional Notes:**

- a. Absolutely No Cell Phones permitted during class – turn them off, please.
- b. The instructor reserves the right to modify the course content, weighting, and/or the evaluation procedures as deemed necessary.
- c. The instructor reserves the right to modify the contents and or dates found in the following schedule, at his discretion.

16. **TENTATIVE COURSE TIMELINE:**

Class Dates	Course Material
Tuesday, August 21	Syllabus/ Course Outline/Introductions; Chapter 1.1
Thursday, August 23	1.2, 1.3
Tuesday, August 28	2.1; 2.2
Thursday, August 30	Quiz 1; 2.3
Tuesday, September 4	2.4; 2.5
Thursday, September 6	Exam 1 – covers Chapters 1 & 2
Tuesday, September 11	5.1; 5.2
Thursday, September 13	5.3; 5.4
Tuesday, September 18	Quiz 2; 5.5
Thursday, September 20	Exam 2 – covers Chapter 5
Tuesday, September 25	6.1; 6.2
Thursday, September 27	6.3; 6.4
Tuesday, October 2	6.5; 6.6
Thursday, October 4	Quiz 3; 7.1; 7.2
Tuesday, October 9	7.3; 7.4;
Thursday, October 11	Exam 3 – covers Chapters 6 & 7
Tuesday, October 16	8.1; 8.2
Thursday, October 18	8.3; 8.4
Tuesday, October 23	Quiz 4; 8.5

Thursday, October 25	8.6; 9.1
Tuesday, October 30	9.2; 9.3
Thursday, November 1	Exam 4 – covers Chapters 8 & 9
Tuesday, November 6	10.1, 10.2, 10.3
Thursday, November 8	10.4; 10.5
Tuesday, November 13	10.6; 11.1
Thursday, November 15	11.2; 11.3
Tuesday, November 20	<i>No class - Thanksgiving</i>
Thursday, November 22	<i>No class - Thanksgiving</i>
Tuesday, November 27	12.1; 12.2
Thursday, November 29	12.3; 12.4
Tuesday, December 4	Exam 5 – covers Chapters 10; 11; & 12
Thursday, December 6	Project Presentations
Tuesday, December 11	Course Review
Thursday, December 13	Final Exam – Comprehensive & Cumulative, 6:05 – 7:20 pm