Course Syllabus – Spring 2012

COURSE: MATH 110 – Mathematical Perspectives

INSTRUCTOR: Jim Anthony

OFFICE: 158 Hoyt

OFFICE HOURS: MWF: 10 – 11 am MW: 1 – 2 pm
Also by appointment.

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REQUIRED MATERIALS:

1. Math Perspectives Workbook by Jim Anthony. (Available at the bookstore)
2. A three-ring binder for the workbook. You need to bring the binder to class everyday.

OPTIONAL Materials:

1. Scientific calculator. It should be able to do combinations and permutations.
2. For All Practical Purposes 6th, 7th, or 8th edition is fine.

GRADING **500 total points**

Tests: There will be two 100-point examinations.
Quizzes / Problem Sets: There will be 100 points worth of quizzes and/or problem sets.
Final: There will be a required comprehensive final exam to be given during finals week. The final exam will count as 200 points.

There are NO makeup quizzes and late problem sets will NOT be accepted.
Make-up exams are only possible with permission of the Dean.
Class participation/contribution and attendance may be used to determine borderline cases.

Grade	Min Score (%)	Grade	Min Score (%)
A	93.3	C+	76.6
A -	90.0	C	70.0
B+	86.6	D	60.0
B	83.3	F	0.0
B -	80.0		

These cutoffs may be lowered and there will be chances for extra-credit during the course.

EXTRA-CREDIT

There may be optional extra-credit opportunities throughout the semester. **Students with poor attendance (2 or more unexcused absences) or observed cell-phone use twice during class will not receive any extra-credit or attendance bonus in the course.**

ATTENDANCE

Attendance is required. Math is difficult to learn at times and the material builds on the previous material, so if you miss a class, it is crucial to learn the material as soon as possible. Please let me know prior to missing a class. If there is an emergency and you need to miss class, please notify me as soon as possible afterwards.

Each unexcused absence will lower your final grade percentage by ONE percent.

Perfect attendance will raise your final grade percentage by TWO percent.

Goals:

- To gain an understanding of statistics and different ways of displaying data.
- To gain an understanding of probability and its applications.
- To understand basic decision theory and its applications.

Topics:

- Statistics
- Probability
- Decision Theory
- Applications
- Other topics as time allows.

Objectives:

Students should be able to

- demonstrate an understanding of the basic concepts of statistics.
- compute statistics (including mean, mode, median, standard deviation, variance, IQR, Range, percentages, quartiles, etc.) of various data sets.
- apply the 68/95/99.7 rule to normal distributions in application problems.
- construct and analyze distributions.
- find best-fit lines.
- compute and interpret correlation coefficients.
- compute # of possible outcomes of experiments.
- use various techniques to compute and interpret probabilities.
- determine optimal strategies using decision theory.
- compare and interpret z-scores.
- apply the sequential counting principle appropriately.
- evaluate problems involving conditional probability.
- determine expected values.

ASSIGNED WORK IS NOT ACCEPTED LATE unless the delay is due to a verified emergency, crisis, or death, in which case a note from the Dean of Student Affairs will be forthcoming. Absence from class is not a reason for submitting late work.

GROUP WORK: Group work is a proper and effective way to study and learn if all participants do their full share of the work. It is possible to misunderstand exactly what it means to be responsible for "doing your own work." You may (and should) discuss problems with other students and reach conclusions together. However, it is a form of academic dishonesty for a student, who has not attended class, read the assignment, or thought about the problem on their own to try to use the ideas developed by a group or claim credit for work to which one has not contributed. It is also dishonest to encourage or allow such practices on the part of others. You must, in all cases, leave the group discussion and write your own solutions for the exercises you submit for grading.

All information in this outline is subject to change at the discretion of the instructor.

ACADEMIC INTEGRITY: Central to the purpose and pursuit of any academic community is academic integrity. All members of the Westminster community, including students, faculty, staff, and administrators, are expected to maintain the highest standards of honesty and integrity, in keeping with the philosophy and mission of the College. Academic dishonesty is a profound violation of this code of behavior.

This academic integrity statement is taken from the Westminster College 2011-2012 Undergraduate Catalog, page 71. It is imperative that you never submit the work of others as though it is your own work nor should you ever allow anyone else to use your work without giving credit to you. The penalty for academic dishonesty in this class is minimally the grade of 0 on the assignment and, except for unusual circumstances, a grade of F for the course. Any event of academic dishonesty is reported to the Dean of the College. Other details of violations and consequences are given in the Catalog.

ACCESSIBILITY STATEMENT:
Westminster College actively strives for the full inclusion of all our students. Students with disabilities who require access solutions for environmental or curricular barriers should contact Corey Shaw, Director of Disability Resources, located in 209 Thompson-Clark Hall. phone: 724-946-7192 e-mail: shawcj@westminster.edu

CATOLOG DESCRIPTION:
MTH 110 Mathematical Perspectives (4 SH). An introduction to quantitative concepts and skills, which enable students to interpret and reason with quantitative information. While each section of the course fulfills the quantitative reasoning requirement, the topics covered may vary from section to section.