

# Math 130

# Winter 2010

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## COURSE SUMMARY

Finite math is the mathematics for the information age. Finite math courses originated in the 1950's with the common orientation of studying finite or discrete problems as opposed to the continuous problems investigated in courses such as Calculus. Finite math courses typically include units in logic, set theory, counting principles, statistics and decision making.

At CWU, Finite math is often selected to satisfy the "reasoning" requirement for graduation. It is real-world applicable and serves to prepare students for research and statistic courses at a later date. Basic course goals include:

- Analyzing counting techniques pictorially, algebraically, numerically and graphically.
- Investigating real-world problems with appropriate probability and statistical descriptions.
- Understanding the connection between probability and statistics
- Using technology to help solve problems, experiment, interpret results and verify conclusions.
- Determining the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Appreciating that the procedure for solving a problem is as important as the answer, and that a variety of procedures can be used to solve most problems.
- Communicating knowledge in both everyday and mathematical language.

## NECESSITIES

1. Come to class. Math requires a daily commitment to become successful.
2. The required text is Finite Mathematics, Introductory Probability and Statistics by Owen and Cutlip.
3. You should have a scientific calculator and preferably a graphing calculator. ( I will be using a TI-83)
4. Get yourself the help you need. I am more than happy to help you as much as possible. Beyond that, form study groups and take advantage of the math center here on campus.
5. Participate in class discussions. The best learning takes place when students ask questions.

## SPECIAL POINTS OF INTEREST:

- Daily homework is assigned but not collected.
- All quizzes will be announced, worth 20 points, and cover assigned homework problems. Daily homework may be used during these quizzes.
- A handwritten 3 x 5 note card may be used on tests.
- We will have 3 100-point exams and a final worth 150 points. All tests are cumulative.
- The first 3 tests may be retaken outside of class time by arranging time with the instructor.
- Dates for exams and quizzes will be announced in class.
- Three projects will be worth about 50 points each.
- Grades are based on total point percentages, calculated to the nearest whole number.

A=93%, B=83%, C=73%, D=63%. A minus grade would be (-3%) and a plus grade would be (+4%)

## SELECTED PROBLEMS

Section

Exercises

6.1	3-6,11
6.2	16,18-20,22,23,25,28,30,31,35
6.4	39,44,56-61,67-73,80-84
6.5	88-98,100-109,131,135-137
6.6	138,139,144-172
6.7	173,174,176,178-179,187-191
7.1	1,2,7,8,11,13,15-18,21-27,40-48,65,66
7.2	69,72,74,78,80
7.3	95-132
7.4	146,148-153,157,159-163
7.5	167-169,175,176,184-187
7.6	194,195,197,200-202
8.1	1-6,17,18,21,22,24,30,31
8.2	35-38,45-47,52
8.3	55-58,63,65-70
8.4	76-80,86-88,91-93,96,99,101,106,107,111,116-118,122-130,138,145-148
8.5	155-168
8.6	170-177,184-188
8.7	189-207,212-218,227-229
9.1	1-5,20-22
9.2	23,26,28
9.3	32-34,45-50
9.4	51-55,64-70
9.5	71-74,77,80-84,88-90
9.6	91-94,108-114,121-124
10.1	1,3,5,7-10
10.2	14-17,20
10.3	21-36,41-43
10.4	57-66