

Math 101-Spring 2009

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COURSE SUMMARY

MATH IN THE MODERN WORLD IS MATHEMATICS FOR STUDENTS WHO WANT A BETTER UNDERSTANDING OF THE REAL-LIFE MATHEMATICS THAT ALL PEOPLE FACE. IT IS ESPECIALLY DESIGNED FOR THOSE WHO HAVE STRUGGLED WITH MATHEMATICS IN THE PAST. THE COURSE STRESSES THE APPLICATION OF MATHEMATICS TO PERSONAL AND SOCIAL ISSUES, RATHER THAN STRESSING THE ABSTRACT IDEAS FOUND IN MANY MATHEMATICS COURSES. THIS IS A PROJECT-BASED COURSE THAT PREPARES STUDENTS TO FUNCTION IN REAL-LIFE SITUATIONS INVOLVING QUANTITATIVE DATA.

AT CWU, MATH IN THE MODERN WORLD IS OFTEN SELECTED TO SATISFY A GENERAL EDUCATION REQUIREMENT FOR GRADUATION. IT IS REAL-WORLD APPLICABLE AND SERVES TO PREPARE STUDENTS FOR MATHEMATICS THAT WILL BE ENCOUNTERED IN OTHER CORE COURSES. IT ALSO HELPS TO DEVELOP A STUDENT'S ABILITY TO REASON QUANTITATIVELY TO ACHIEVE SUCCESS IN THEIR FUTURE CAREERS AND PERSONAL LIVES. BASIC COURSE GOALS INCLUDE:

- BECOMING FAMILIAR WITH TECHNIQUES FROM MANY BRANCHES OF MATHEMATICS.
- DEVELOPING THE ABILITY TO ANALYZE QUANTITATIVE INFORMATION CRITICALLY.
- INVESTIGATING REAL-WORLD PROBLEMS CREATIVELY.
- UNDERSTANDING THE CONNECTIONS BETWEEN VARIOUS MATHEMATICAL METHODS.
- USING TECHNOLOGY TO HELP SOLVE PROBLEMS, EXPERIMENT, INTERPRET RESULTS AND VERIFY CONCLUSIONS.
- DETERMINING THE REASONABLENESS OF SOLUTIONS.
- APPRECIATING THAT THE PROCEDURE FOR SOLVING A PROBLEM IS AS IMPORTANT AS THE ANSWER.
- COMMUNICATING KNOWLEDGE IN BOTH EVERYDAY AND MATHEMATICAL LANGUAGE.

SPECIAL POINTS OF INTEREST

- DAILY HOMEWORK IS ASSIGNED BUT NOT COLLECTED.
- HOMEWORK QUIZZES WILL BE WORTH 20 POINTS, AND COVER ASSIGNED HOMEWORK PROBLEMS. DAILY HOMEWORK MAY BE USED DURING THESE QUIZZES.
- WE WILL HAVE 3 100-POINT EXAMS AND A FINAL WORTH 150 POINTS. A HANDWRITTEN 3 X 5 NOTE CARD MAY BE USED ON TESTS.
- THE FIRST 3 TESTS MAY BE RETAKEN.
- DATES FOR EXAMS AND QUIZZES WILL BE ANNOUNCED IN CLASS.
- THREE PROJECTS WILL BE WORTH ABOUT 50-70 POINTS EACH.
- GROUP HOMEWORK ASSIGNMENTS WILL BE WORTH APPROXIMATELY 125 POINTS.
- 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%)

NECESSITIES

1. COME TO CLASS. MATH REQUIRES A DAILY COMMITMENT TO BECOME SUCCESSFUL.
2. THE REQUIRED TEXT IS MATHEMATICS A QUANTITATIVE REASONING APPROACH, 4TH EDITION BY BENNETT & BRIGGS
3. YOU SHOULD HAVE A SCIENTIFIC CALCULATOR AND PREFERABLY A GRAPHING CALCULATOR
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.

ASSIGNED PROBLEMS

SECTION	EXERCISES
3A 109	18, 20-23, 25, 61-66, 69, 70, 74, 76, 82, 83, 85, 86, 89, 92, 94, 95, 97, 98, 103, 104, 107,
3C	22-24, 45-63 ODD, 67
3D	15, 16, 21, 23, 27, 29-33, 40, 41, 44, 46
3E	15, 17, 20-22, 25-33 ODD, 34
5C	19-22, 25, 27, 28, 36, 37, 39, 45, 46, 48, 56, 57
5D	19, 22-24, 26, 27, 42, 44, 45, 47, 50, 52
4A	19-23,26, 29-33 ODD, 37, 51, 53, 59-63 ODD
4B	19-24, 43, 45, 51-55 ODD, 61, 67, 73, 75, 79, 81, 87-91 ODD
4C	19-24, 45, 49, 53-61 ODD, 67-79 ODD, 83, 87, 91, 103
4D	17, 19-21, 23, 27, 35, 37, 41-45 ODD, 51, 62
12A	19-25, 34, 35, 37, 39-41, 43, 46, 47
12B	15-20, 22, 23, 25-27, 29, 30-36 EVEN, 37, 39-42, 45, 46, 52-56, 62
12C	19-23, 29, 31, 37, 41, 43, 51
8A	1-5, 15, 16, 19, 21, 24
8B	19-22, 35-43 ODD, 49-51, 53, 59, 63, 65
8C	17, 18, 21, 22, 24, 25-29 ODD, 33, 34, 39-43 ODD
9B	17, 31, 32, 35, 37
9C	17-20, 37, 39, 51