SAN JUAN COLLEGE
Success Matters

MATH 1155-HEALTH CAREERS MATH 3 CREDITS

SYLLABUS

CATALOG DESCRIPTION

This course introduces the computational skills needed to study in health careers programs. Topics include operations on fractions, decimals, percents, as well as the use of formulas, ratio and proportion, and measurement. Students will solve word problems specific to medication orders.

Prerequisites:

Semester Offered: Fall, Spring, Summer

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in…

BROAD AND SPECIALIZED LEARNING
   Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING
   Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT
   Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION
   Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY
   Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES
   Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

A copy of this approved syllabus is on file in the dean's office.

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Course Learning Outcomes

Upon successful completion of the course, the student will be able to…

1. Mastery of basic math skills.
2. Use of measurement systems including English, Apothecaries', Household and Metric.
3. Ratio, Proportion and Percent
4. Strategies of problem solving needed in health science courses.

SPECIFIC LEARNING OUTCOMES:

Upon successful completion of the course, the student will be able to …

1.1 Add, subtract, multiply and divide integers and simplify expressions of integers and decimals.

1.2 Add, subtract, multiply and divide rational numbers and simplify rational expressions.

1.3 Read and write Roman numerals.

1.4 Apply computational and calculator skills to appropriate applications for health career areas.

1.5 Apply commutative, associative and distributive laws in simplifying and solving equations involving integers and fractions.

1.6 Use ratios and proportions to solve problems of direct variation in appropriate applications for health career areas.

1.7 Convert percents to fractions and vice-versa to solve problems in appropriate applications for health career areas.

1.8 Apply logarithms in appropriate applications for health career areas.

1.9 Use angles in appropriate applications for health career areas.

2.1 Appropriately convert units of length, weight, volume and dosage measurement systems (i.e. Metric, English, Apothecaries' and Household).

2.2 Use and read mathematical medical abbreviations.

2.3 Use and read military time.

3.1 Calculate correct dosages for given medications in all forms (i.e. tablets, liquids, intravenous).

3.2 Be able to read and construct graphs (i.e. table, bar, circle, line, etc.).

3.3 Use logarithms to calculate pH and pOH.

3.4 Compute hydrogen ion and hydroxyl ion concentration from provided information.

3.5 Understand and apply basic statistics.

3.6 Compute range, mid-range, median, mode, mean, and standard deviation.

3.7 Compute 1,2 and 3 standard deviations on either side of the mean of the normal distribution

OTHER REQUIREMENTS:

A scientific calculator is required.

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