

SINCLAIR COMMUNITY COLLEGE
DAYTON, OHIO

DEPARTMENT SYLLABUS FOR COURSE IN

MAT 1130 – Allied Health Math
(3 SEMESTER HOURS)

1. COURSE DESCRIPTION: Compute with fractions, decimals, percentages, and solve allied health applications; convert within and between metric, household, and apothecary systems; read and interpret allied health graphs, labels and forms; calculate and apply statistical concepts.
2. COURSE OBJECTIVES: To provide students with an understanding of the mathematical skills and concepts required to be successful in allied health.
3. PREREQUISITE: Satisfactory score on Mathematics Placement Test, or MAT 0050.
4. ASSESSMENT: In addition to required exams as specified in the syllabus, instructors are encouraged to include other components in computing final course grades such as homework, quizzes, and/or special projects. However, 80% of the student's course grade must be based on in-class proctored exams.
5. TEXT: **Math Basics for the Health Care Professional**, customized text, by Michele Benjamin Lesmeister
Pearson Education Inc.; 2014
Adopted: Fall 2017
6. CALCULATOR: A scientific (non-graphing) calculator is required.
Note: No calculator is allowed on Test 1
7. PREPARED BY: Kay Cornelius, Amity Jetton, Olga Stephens, Marie Stroh, James Willis
Effective: Fall 2017

On the following pages are different sample schedules based on the following possibilities:

- 16 weeks
- 8 weeks

Be sure to model your section's schedule based on the appropriate option.

Instructor Guidelines for Cumulative Final Exam

- The cumulative final exam will be created by the instructor choosing one problem of each category from the pool made available by the department.
- Be sure to choose a variety of difficulty levels, such that the students should be able to complete the final in approximately 50 minutes.
- The problems should be similar in type to those created for the tests, and appropriate partial credit should be given when grading.

MAT 1130 Memorization List

Students are required to memorize and be able to use the following:

- Unit 1:** Mean, median, mode, and range of a data set (pages 18-22)
Roman numeral symbols given and related rules (pages 23-25)
Universal time conversion (page 26)
- Unit 2:** Conversions between Celsius and Fahrenheit (page 61)
Common measurements and equivalents (bottom of page 66)
- Unit 4:** Approximate equivalents (page 114)
- Unit 6:** Measurement conversion table (page 153)
- Unit 8:** Metric table (top of page 188)
- Unit 10:** Apothecary symbols, approximate equivalents (two tables, page 220)
- Unit 11:** Dosage calculation formula (pages 238-239)
- Unit 12:** Parenteral abbreviations (page 253)
Dosage forms, syringe rules (two tables, page 256)
- Unit 13:** IV abbreviations (page 267)

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CLASS SCHEDULE FOR COURSE IN
MAT 1130 – ALLIED HEALTH MATH
(3 SEMESTER HOURS)

16-Week (Full Semester) Term

Week	Units	Topics
1	1, 2	Introduction, Initial Assessment, Whole Numbers, Fractions
2	2, 3	Fractions, Decimals, Pulse and Respiration Activity
3	3,4	Decimals, Quiz #1 (Units 1,2), Ratio and Proportion
4	4, Review	Ratio and Proportion, Quiz #2 (Units 3, 4), Review
5	1, 2, 3, 4 5	Test 1 (Units 1, 2, 3, 4) Percents
6	5, 6	Percents, Sensitivity-Specificity Activity, Combined Applications
7	6,7	Combined Applications, Pre-Algebra Basics, Quiz #3 (Units 5, 6)
8	7, 8	Pre-Algebra Basics, Respiratory Activity, Metric System
9	8, 9	Metric system, Labels, Quiz #4 (Units 7, 8)
10	Review 5, 6, 7, 8, 9	Review/Catch Up Day Test 2 (Units 5, 6, 7, 8, 9)

11	10, 11	Apothecary System, Dosage Calculations
12	11, 12	Dosage Calculations, Parenteral Dosage, Quiz #5 (Units 10, 11)
13	12, 13	Parenteral Dosage, Nursing Knowledge Activity, Intravenous Basics
14	13, 14	Intravenous Basics, Dosage by Body Weight, IV Activity
15	Review 10, 11, 12, 13, 14	Review/Catch Up Day, Quiz #6 (Units 12, 13) Test 3 (Units 10, 11, 12, 13, 14)
16	Review 1 to 14	Review for Final Exam Comprehensive Final Exam

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CLASS SCHEDULE FOR COURSE IN
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8-Week (Half Semester) Term

Week	Units	Topics
1	1, 2, 3	Introduction, Initial Assessment, Whole Numbers, Fractions, Decimals, Pulse and Respiration Activity
2	3, 4, Review	Decimals, Quiz #1 (Units 1,2), Ratio and Proportion, Quiz #2 (Units 3, 4), Review
3	1, 2, 3, 4, 5, 6	Test 1 (Units 1, 2, 3, 4), Percents, Sensitivity-Specificity Activity, Combined Applications
4	6, 7, 8	Combined Applications, Pre-Algebra Basics, Quiz #3 (Units 5, 6), Respiratory Activity, Metric System
5	8, 9, Review 5, 6, 7, 8, 9	Metric System, Labels, Quiz #4 (Units 7, 8), Review, Test 2 (Units 5, 6, 7, 8, 9)

6	10, 11, 12	Apothecary System, Dosage Calculations Parenteral Dosage, Quiz #5 (Units 10, 11)
7	12, 13, 14	Parenteral Dosage, Nursing Knowledge Activity, Intravenous Basics, Dosage by Body Weight, IV Activity
8	Review 10, 11, 12, 13, 14 1 to 14	Review/Catch Up Day, Quiz #6 (Units 12, 13) Test 3 (Units 10, 11, 12, 13, 14) Review for Final Exam Comprehensive Final Exam