



CLINICAL COMPUTATIONS

Revised 01/11/12

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COURSE NUMBER: AHS 107

PREREQUISITE(S): CNA Component , AHS 101, AHS 163, and AHS 106

CO-REQUISITE(S): AHS 170 and AHS 152

COURSE DESCRIPTIONS: This course is a study of the principles and applications of computations used in the clinical setting.

TEXTBOOK(S): Kenamer, Mike. Math for the Health Care Professionals.
Delmar Congage.

REFERENCE(S): None

OTHER REQUIRED MATERIALS, TOOLS, AND EQUIPMENT: Basic 4-function calculator

METHOD OF INSTRUCTION: This course will be taught by lecture and practice exercises.

GRADING SYSTEM:

94	-	100	=	A
85	-	93	=	B
80	-	84	=	C
70	-	79	=	D
Below	-	70	=	F

A minimum grade of "C" is required to pass this course.

The instructor may elect to give pop tests.

GRADE CALCULATION METHOD:

Tests and Written Assignments	=	50%
Quizzes and Daily grades	=	25%
Final Exam	=	<u>25%</u>
	=	100%

ATTENDANCE
POLICY:

The student is responsible for punctual and regular attendance in all classes, laboratories, clinical, practica, internships, field trips, and other required class activities. The College does not grant excused absences; therefore, students are urged to reserve their absences for emergencies. When illness or other emergencies occur, the student is responsible for notifying instructors and completing missed work if approved for late submission by instructors

The student is tardy if not in class at the time the class is scheduled to begin and is admitted to class at the discretion of the instructor. Two tardies or two early dismissals will count as an absence and make-up work will be required.

During the didactic phase of instruction, any one reporting to class within 10 minutes after the hour will be counted absent for that hour. If the student is tardy during a period in which a major test is given, the test must be completed during the time remaining in that period. Any unannounced quizzes missed because of tardiness or unexcused absences (not calling in) will equate to a zero. Failure to return from a break at the designated time will be counted as a tardy.

The student is expected to call in as early as possible after 7:30 AM on every day of absence. Messages should be left on the Instructor's (592-4869) voice mail. Students will be held responsible for all class and lab material covered that day, and must make up all practical procedures (labs, etc.) covered on the day of absence. It is the student's responsibility to contact the instructor upon return to class concerning a satisfactory time to complete make-up work. Failure to contact the instructor on the day of return or complete make-up work on the agreed upon day will result in a zero grade for the work the student has missed.

If the student is absent on the day of an assigned test, the program director must be notified prior to the absence. No arrangements will be made for a make-up examination in the event that the student is absent without prior notification. A grade of "0" will be recorded for the test. **A maximum of 2 make-up tests will be allowed.**

Instructors maintain attendance records. However, it is the student's responsibility to withdraw from a course. A student enrolling in and attending at least one course session

remains enrolled until the student initiates a withdrawal.

Withdrawal Policy: During the first 75% of the course, a student may initiate withdrawal and receive a grade of W. A student cannot initiate a withdrawal during the last 25% of the course. Extenuating circumstances require documentation and approval by the appropriate department head and academic dean.

Absences for Religious Holidays: Students who are absent from class in order to observe religious holidays are responsible for the content of any activities missed and for the completion of assignments occurring during the period of absence. Students who anticipate their observance of religious holidays will cause them to be absent from class and do not wish such absences to penalize their status in class should adhere to the following guidelines:

1. Observance of religious holidays resulting in three or fewer consecutive absences: Discuss the situation with the instructor and provide written notice at least one week prior to the absence(s). Develop (in writing) and instructor-approved plan which outlines the make up of activities and assignments.
2. Observances of religious holidays resulting in four or more consecutive absences: Discuss the situation with the instructor and provide the instructor with written notice within the first 10 days of the academic term. Develop an instructor-approved plan with outlines the make up of activities and assignments.

ACADEMIC CONDUCT:

ACADEMIC DISHONESTY: Students are expected to uphold the integrity of the College's standard of conduct, specifically in regards to academic honesty. All forms of academic dishonesty including, but not limited to, cheating on assignments/tests, plagiarism, collusion, and falsification of information will call for disciplinary action. Disciplinary action imposed may include one or more of the following: written reprimand, loss of credit for assignment/test, termination from course, and probation, suspension, or expulsion from the College. For further explanation of this and other conduct codes, please refer to the Student Handbook.

CELLULAR PHONES AND PAGERS/BEEPERS: Cellular phones,

paggers and beepers are not permitted to be turned on or used within the classroom. Use of these devices during classroom time will be considered a violation of the student code as it relates to “disruptive behavior.”

ACCOMMODATIONS: Students who need special accommodations in this class because of a documented disability should notify Student Disability Services. You may contact Student Disability Services by calling, (864) 592-4811, toll-free 1-800-922-3679; via email through the Spartanburg Community College web site at www.sccsc.edu/SDS/; or by visiting the office located in the Dan Lee Terhune Student Services Building, room 112 of the Spartanburg Community College campus. By contacting Student Disability Services early in the semester, students with disabilities give the College an opportunity to provide necessary support services and appropriate accommodations.

**COURSE
COMPETENCIES &
OBJECTIVES:**

Upon satisfactory completion of this course, the student will be able to:

- I. Demonstrate ability to perform basic mathematical functions.
 1. Demonstrate ability to add, subtract, divide, and multiply fractions and reduce to the lowest terms.
 2. Demonstrate ability to convert between Roman and Arabic numbers.
 3. Demonstrate ability to add, subtract, multiply, and divide decimals and round them to a specific number place value.

- II. Demonstrate ability to apply ratios, proportion, and percents, in problem calculations.
 1. Demonstrate ability to calculate equivalent measurements, using percents, ratios, decimals, and fractions
 2. Demonstrate ability to express numbers in ratio and proportion and solve for unknowns.

- III. Demonstrate ability to calculate equivalent measurements within the metric systems.
 1. Demonstrate ability to convert between the metric, household, and apothecary systems of measurement.
 2. Demonstrate ability to convert temperature between Fahrenheit and Celsius.

- IV. Demonstrate ability to interpret prescriptions, medication orders, and drug labels.
 1. Demonstrate ability to interpret medical and pharmaceutical abbreviations, and terminology.
 2. Demonstrate ability to identify components of a prescription, medication orders, and drug labels.
 3. Demonstrate ability to read a syringe
 4. Demonstrate ability to convert the dosage order to the desired dose.
 5. Demonstrate ability to calculate the amount to dispense of a drug.

6. Demonstrate ability to calculate estimated days supply.
- V. Demonstrate ability to calculate administration amounts of oral and parental medications.
 1. Demonstrate ability to determine the percentages of solutions, dilutions, and solids.
 2. Calculate IV flow rates, and infusion time.
 3. Calculate medication dilutions from a concentrate using the proportion method.
 - VI. Demonstrate dose specific calculations for special populations based on body weight and patient age.
 1. Calculate patient's weight to kilograms
 2. Calculate pediatric doses using a formula
 3. Calculate dose based on weight and body surface area.
 - VII. Demonstrate ability to accurately read and use various equipment used in a variety of healthcare settings.
 1. Demonstrate ability to read patient scales.
 2. Convert between English and Metric weight measurements.
 3. Demonstrate the ability to read an English (household) and metric ruler.
 4. Convert between English and metric lengths.
 5. Demonstrate the ability to read a thermometer.
 - VIII. Demonstrate the ability to calculate fluid imbalances by comparing intake and output
 1. Define intake and output.
 2. Demonstrate the ability to accurately measure urinary output.
 3. Calculate total daily output.
 4. Determine intake by estimating.