ALMA 1000 – Allied Health Math Applications
COURSE SYLLABUS
Spring Semester 2018

COURSE INFORMATION

Credit Hours/Minutes: 0 Credit Hours/2250 Minutes
Class Location: Room #821 — Gillis Building
Class Meets: Monday/Wednesday 10:30AM—12:00PM
Course Reference Number (CRN): 40247

INSTRUCTOR CONTACT INFORMATION

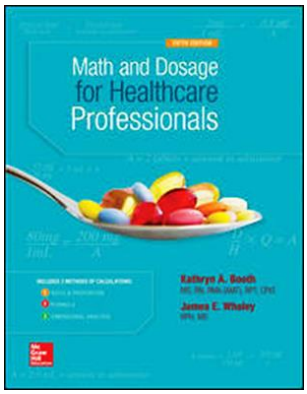
Instructor Name: Matt Brown, CPhT
Office Location: Room #722 — Gillis Building
Office Hours: Monday/Wednesday: 9:00—10:00; 3:00—6:00; or By Appointment
Email Address: Matt Brown (mbrown@southeasterntech.edu)
Phone: 912-538-3192
Fax Number: 912-538-3106
Tutoring Hours (if applicable): By Appointment

SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's Catalog and Handbook (http://www.southeasterntech.edu/student-affairs/catalog-handbook.php).

REQUIRED ETEXT – PROVIDED BY STC

- Booth, K., & Whaley, J. (2016). *Math and Dosage Calculations for Healthcare Professionals. (5th edition).* New York, NY: McGraw-Hill Education. ISBN 978-0-07-351380-5



- McGraw-Hill CONNECT online access

REQUIRED SUPPLIES & SOFTWARE

Paper, Pens/Pencils, Folder, and Computer Access

COURSE DESCRIPTION

ALMA 1000 prepares students in understanding the application of mathematics in their health science program courses. The topics included are basic mathematics, medical terminology, mathematical conversions, weight and measurement applications used in health science programs. Additionally, problem-solving strategies, basic principles of medication administration, and research in health science will be incorporated into the course competencies.

MAJOR COURSE COMPETENCIES

1. Problem Solving Strategies
2. Basic Mathematics in Health Science
3. Medical Terminology Used in Health Science Math Applications
4. Conversion Applications in Health Science
5. Weight and Measurement in Health Science
6. Basic Principles of Medication Administration
7. Research in Health Sciences

PREREQUISITE(S)

- Certificate Programs with a math component: MATH 1012 with a C or better
- Diploma Programs: MATH 1012 with a C or better
- Degree Programs: Appropriate algebra placement test score

COURSE OUTLINE

Problem Solving Strategies

Order	Description	Learning Domain	Level of Learning
1	Use problem solving strategies to solve application problems (See Definition Section)	Cognitive	Application

Basic Mathematics in Allied Health

Order	Description	Learning Domain	Level of Learning
1	Perform operations and comparisons with fractions, decimals, and percent.	Cognitive	Application
2	Perform operations with exponents including powers of ten	Cognitive	Application
3	Convert between standard notation and scientific notation	Cognitive	Comprehension
4	Convert between and interpret the medical application of Arabic Numerals and Roman Numerals	Cognitive	Comprehension
5	Perform basic allied health applications using ratios, rates and proportions	Cognitive	Application
6	Develop mental calculations skills through drill & practice, contextualization, etc.	Cognitive	Application

Medical Terminology Used in Allied Health Math Applications

Order	Description	Learning Domain	Level of Learning
1	Demonstrate an understanding of medical terminology used in allied health math	Cognitive	Application
2	Interpret medical abbreviations as related to allied health math	Cognitive	Application

Conversion Applications in Allied Health

Order	Description	Learning Domain	Level of Learning
1	Demonstrate an understanding of the systems of measurement and their equivalencies	Cognitive	Application
2	Convert among and between measurement systems (metric, apothecary, household/American/English) using formulas, mental calculations, proportions, dimensional analysis, and means/extremes	Cognitive	Comprehension

Weight and Measurement Applications in Allied Health

Order	Description	Learning Domain	Level of Learning
1	Interpret medical measurement devices (scales, tape measure, syringes, wound measurement devices, etc.)	Cognitive	Comprehension
2	Demonstrate weight and measurement literacy	Cognitive	Application

Basic Principles of Medication Administration

Order	Description	Learning Domain	Level of Learning
1	Interpret and translate orders for medication	Cognitive	Comprehension
2	Use ratios, rates, and proportions to perform allied health applications and mixture/concentration problems	Cognitive	Application
3	Perform basic dosage calculations.	Cognitive	Application

Research in Allied Health

Order	Description	Learning Domain	Level of Learning
1	Demonstrate an understanding of the importance of the scientific method in research	Cognitive	Application
2	Interpret statistical measures used in the allied health field	Cognitive	Comprehension
3	Review a scientific journal article related to the allied health field	Cognitive	Comprehension

GENERAL EDUCATION CORE COMPETENCIES

Southeastern Technical College has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

Students are expected to exhibit professional behavior at all times. Each student must show respect and concern for fellow students and for the course instructor. No cell phones or pagers are allowed to be turned on in the classroom unless permitted by the instructor for instructional activities. Personal phone calls must be handled outside of class. Watches with alarms should not be programmed to sound during class.

The textbook is provided by Southeastern Technical College through the McGraw-Hill online learning management system called CONNECT™. Students are expected to complete all homework and pretests assignments online through CONNECT™. Weekly assignments are listed on the attached lesson schedule and are posted on the CONNECT™ website. Students should complete or attempt CONNECT™ assignments **before** coming to class so participation in classroom activities/applications labs will reinforce key concepts covered in each chapter. CONNECT™ assignments may be repeated, as many times as the student needs for practice, however, the day of each chapter test homework/pretest grades will be recorded.

CONNECT™ assignments consist of chapter homework and chapter pretest that will be averaged together to calculate the homework grade for each chapter. Classroom activities and applications are calculated by student attendance and participation for the week's activity. If a student is not in attendance for class on a scheduled classroom activity/lab day, they will not receive credit (1 point) for that day's classroom activity/lab

TESTING POLICY

No talking is allowed once an examination or evaluation begins. Students found with their cell phone or any other personal communication device during a test will be considered cheating and given a zero for the test. Calculators will be provided during testing. Students are not allowed to utilize their cell phone as a calculator during tests.

In the event a student does not demonstrate stellar performance on their first attempt of a Chapter test, a retest will be offered. The retest must be taken immediately after the class review of the first test. This will encourage mastery of the Chapter material and allow the student a second chance at demonstrating their knowledge and skills as well as promote student learning of the Chapter content before new material is introduced. The highest score of the two tests will be utilized as the students Chapter test score.

ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of "F" (Failing 0-59) and face financial aid repercussions in upcoming semesters.
Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an "F" in a course.

SPECIAL NEEDS

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas (hthomas@southeasterntech.edu), 912-538-3126, to coordinate reasonable accommodations.

SPECIFIC ABSENCES

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with Helen Thomas (hthomas@southeasterntech.edu), 912-538-3126.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" (Withdrawn) is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of "F" being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

Remember - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC.)

If a student misses a classroom activity/participation, a grade of zero will be assigned for that day's classroom activity/participation grade.

The instructor may, at their discretion, allow students to make up any assignments/tests that were missed due to absence if the instructor is notified in advance of the absence, or if any unforeseen circumstances arise that cause the student to be absent from class. These situations will be dealt with on a case-by-case basis. The student is responsible for notifying the instructor of any absence, as well as supplying any available documentation concerning the absence in order for the instructor to consider allowing the assignments to be made up.

ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Student Handbook.

PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. **First Offense**
   Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.
2. **Second Offense**
   Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.
3. **Third Offense**
   Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION

The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	**Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer**
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1st Street, Vidalia Office 108 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1st Street, Vidalia Office 138B Phone: 912-538-3147 Email: Blythe Wilcox bwilcox@southeasterntech.edu

ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College's website.

ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the Southeastern Technical College (STC) Website (www.southeasterntech.edu).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

GRADING POLICY

Assessment/Assignment	Percentage
Chapter Test Average	50%
Classroom Activity/Application Lab Participation	15%
Homework & Pretests (CONNECT Assignments)	10%
Final Exam (ALMA 1000 Post-Test)	25%

GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

ALMA 1000 – Allied Health Math Applications
Spring Semester 2018 Lesson Plan

Date	Chapter/Lesson	Content/Assignments/Exams	Competency Area
		Week #1	
1/8		Introduction To Course / Syllabus / CONNECT ALMA 1000 Pre-Test Connect Homework: Chapter 1 – Fractions	
1/10	Chapter 1	Classroom Review & Activity: Chapter 1 – Fractions Connect Homework: Chapter 1 Connect Pretest: Chapter 1	
		Week #2	
1/15	No Class	No Class – Holiday	
1/17	Chapter 1	Classroom Review & Activity: Chapter 1 – Fractions Connect Homework: Chapter 1 Connect Pretest: Chapter 1	
		Week #3	
1/22	Chapter 1	**TEST: Chapter 1 – Fractions** Review Test Connect Homework: Chapter 2 – Decimals	2 A—C
1/24	Chapter 2	Classroom Review & Activity: Chapter 2 – Decimals Connect Pretest: Chapter 2	
		Week #4	
1/29	Chapter 2	**TEST: Chapter 2 – Decimals** Review Test Connect Homework: Chapter 3 – Percents, Ratios & Proportions	2 A—C
1/31	Chapter 3	Classroom Review & Activity: Chapter 3 – Percents, Ratios & Proportions Connect Pretest: Chapter 3	
		Week #5	
2/5	Chapter 3	**TEST: Chapter 3 – Percents, Ratios and Proportions** Review Test Connect Homework: Chapter 4 – Metric System	2 ; 7 A—C
2/7	Chapter 4	Classroom Review & Activity: Chapter 4 – Metric System Connect Pretest: Chapter 4	

Date	Chapter/Lesson	Content/Assignments/Exams	Competency Area
		Week #6	
2/12	Chapter 4	**TEST: Chapter 4 – Metric System** Review Test Connect Homework: Chapter 5 – Other Systems of Measurement	1 ; 4 ; 5 A—C
2/14	Chapter 5	Classroom Review & Activity: Chapter 5 – Other Systems of Measurement Connect Pretest: Chapter 5	
		Week #7	
2/19	Chapter 5	**TEST: Chapter 5 – Other Systems of Measurement** Review Test Connect Homework: Chapters 6—7: Converting Units; Temperature & Time	1 ; 2 A—C
2/21	Chapters 6—7	Classroom Review & Activity: Chapters 6—7: Converting Units; Temperature & Time Connect Pretest: Chapters 6—7	
		Week #8	
2/26	Chapters 6—7	**TEST: Chapters 6—7 – Converting Units; Temperature & Time** Review Test Connect Homework: Chapter 8 – Equipment for Dosage Measurement	1 ; 2 ; 4 ; 5 ; 6 A—C
2/28	Chapter 8	Classroom Review & Activity: Chapter 8 – Equipment for Dosage Measurement Connect Pretest: Chapter 8	
		Week #9	
3/5	Chapter 8	**TEST: Chapter 8 – Equipment for Dosage Measurement** Review Test Connect Homework: Chapter 9 – Interpreting Medication Orders	1 ; 5 A—C
3/7	Chapter 9	Classroom Review & Activity: Chapter 9 – Interpreting Medication Orders Connect Pretest: Chapter 9	
		Week #10	
3/12	Chapter 9	**TEST: Chapter 9 – Interpreting Medication Orders** Review Test Connect Homework: Chapter 10 – Interpreting Medication Labels and Package Inserts	1 ; 5 A—C
3/14	Chapter 10	Classroom Review & Activity: Chapter 10– Interpreting Medication Labels and Package Inserts Connect Pretest: Chapter 10	

Date	Chapter/Lesson	Content/Assignments/Exams	Competency Area
		Week #11	
3/19	Chapter 10	**TEST: Chapter 10 – Interpreting Medication Labels and Package Inserts** Review Test Connect Homework: Chapter 12 – Methods of Dosage Calculations	1 ; 4 ; 5 ; 6 A—C
3/21	Chapter 12	Classroom Review & Activity: Chapter 12 – Methods of Dosage Calculations Connect Pretest: Chapter 12	
		Week #12	
3/26	Chapter 12	**TEST: Chapter 12 – Methods of Dosage Calculations** Review Test Connect Homework: Chapters 13—14: Oral Dosages; Parenteral Dosages	1 ; 3 ; 4 ; 5 ; 6 A—C
3/28	Chapters 13—14	Classroom Review & Activity: Chapters 13—14: Oral Dosages; Parenteral Dosages Connect Pretest: Chapters 13—14	
		Week #13	
4/2	No Class	No Class – Spring Break	
4/4	No Class	No Class – Spring Break	
		Week #14	
4/9	Chapters 13—14	**TEST: Chapters 13—14 – Oral Dosages; Parenteral Dosages** Review Test Basic IV Calculations (Handout)	1 ; 3 ; 4 ; 5 ; 6 A—C
4/11	IV Calculations	Classroom Review & Activity: Basic IV Calculations	
		Week #15	
4/16	IV Calculations	**TEST: Basic IV Calculations** Review Test	1 ; 3 ; 4 ; 5 ; 6 A—C
4/18	Course Review	Course Review	
		Week #16	
4/23	Final Exam	Final Exam	1—7 A—C

COMPETENCY AREAS: (WILL VARY FOR EACH COURSE/TAKEN FROM STATE STANDARDS)

1. Problem Solving Strategies
2. Basic Mathematics in Health Science
3. Medical Terminology Used in Health Science Math Applications
4. Conversion Applications in Health Science
5. Weight and Measurement in Health Science
6. Basic Principles of Medication Administration
7. Research in Health Sciences

GENERAL CORE EDUCATIONAL COMPETENCIES:

A. The ability to utilize standard written English.
B. The ability to solve practical mathematical problems.
C. The ability to read, analyze, and interpret information.