



**COURSE SYLLABUS**  
**ALMA 1000 – Allied Health Math Applications**  
**FALL SEMESTER 2015**



**INSTRUCTOR INFORMATION**

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Instructor: Erin Rollins  
Office Location: Gillis Building  
Telephone: Office – 912.538.XXXX  
Email: [erollins@southeasterntech.edu](mailto:erollins@southeasterntech.edu)  
Office Hours: XXXXX Monday, Wednesday

**COURSE IDENTIFICATION**

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Course Number: ALMA 1000  
Course Name: Allied Health Math Applications  
Course Location: 821 Gillis Building  
Course Length: ALMA 1000 is a 0 semester credit course totaling 2250 Minutes  
Class Time/Days: 8:15 AM –9:45 AM on Tuesday and Thursday  
Prerequisites:

- 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
- Pharmacy Technology Diploma Program: MATH 1012 with a B or better

**COURSE DESCRIPTION/OVERVIEW**

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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.

**INSTRUCTIONAL DELIVERY METHODS**

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ALMA 1000 will be taught using lecture, problem solving methods, and innovative teaching strategies which will include, but will not be limited to, contextualization, simulation, scenario problems, and lab experiences in an effort to strengthen the student's ability to apply the mathematics they already know.

**COURSE COMPETENCIES**

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Problem Solving Strategies  
Basic Mathematics in Health Science  
Medical Terminology Used in Health Science Math Applications  
Conversion Applications in Health Science  
Weight and Measurement in Health Science  
Basic Principles of Medication Administration  
Research in Health Sciences

\*\*\*\*Instructor reserves the right to change the syllabus and/or lesson plan as necessary\*\*\*\*



## Student Learning Outcomes

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1. Students will perform basic mathematical calculations with fractions, decimals, and percentages.
2. Students will perform conversions between the different measurement systems utilizing formulas, mental calculations, proportions, dimensional analysis, and means/extremes.
3. Students will interpret measurements utilizing scales, tape measures/rulers, syringes, and thermometers.
4. Students will interpret terminology used in mathematical applications for Allied Health programs.
5. Students will perform dosage calculations using ratios, rates, and proportions.
6. Students will interpret the importance of scientific research statistical measures.
7. Students will apply problem-solving skills in the application of mathematical concepts.

### General Education Core Competencies & Requirement

STC 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.

All Students pursuing a degree, a diploma, or a Technical Certificate of Credit with a General Education component will be required to pass the General Education Competency Exams prior to graduation.

## COURSE RESOURCES

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### Required Course eText

- Booth, K., Palmunen, J., Sienkiewicz, S., & Whaley, J. (2012). *Math & Dosage Calculations for Healthcare Professionals. (4<sup>th</sup> edition)*. New York, NY: McGraw-Hill. ISBN 978-0-07-337469-7
- Connect online access

### Additional Course Resources

- Khan academy online modules can be used as independent supplemental resources.

### Course Supplies

- Pencils, notebook, paper, highlighter



## GRADING POLICY

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### Grading System

Letter Grade	Percentage	Grade Points/credit	Rating
A	90-100	4.0	Excellent
B	80-89	3.0	Good
C	70-79	2.0	Satisfactory
D	60-69	1.0	Poor
F	0-59	0	Failing

\* Pharmacy Technology program students must earn a minimum grade of B in this course.

### Course Grading Policy

Grades will be based on the following:

Chapter Tests	50%	50 points possible
Classroom Activity/Application Lab Participation	15%	15 points
Homework & Pretests (Connect assignments online)	10%	10 points
Final Exam (ALMA 1000 Post-Test)	25%	25 points
<b>Course Grade</b>	<b>100%</b>	<b>100</b>

\* Pharmacy Technology program students must earn a minimum grade of B in this course.

## COURSE/CLASSROOM POLICIES

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### STUDENT COURSE REQUIREMENTS

Students should be aware of the policies and procedures in the STC online Catalog. 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 after 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 can 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.

\*\*\*Instructor reserves the right to change the syllabus and/or lesson plan as necessary\*\*\*



### **Examination/Evaluation Requirements**

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

### **Examination Retest**

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.

### **Make-up Policy for Examinations/Evaluations/Assignments/Quiz**

If a student misses a classroom activity/application lab a grade of zero will be assigned for that day's classroom activity/application lab participation grade. If a student misses an examination a grade of zero will be assigned for that examination. Unless otherwise scheduled with the instructor, it is expected that the test will be taken the next scheduled class day, outside of regular class time. Failure to follow this procedure will result in a grade of zero.

## **COLLEGE POLICIES**

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**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 also 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 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 Jan Brantley, Room 1208 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 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.

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**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 the Special Needs Office. Swainsboro Campus: Jan Brantley, Room 1208, (478) 289-2274 -- Vidalia Campus: Helen Thomas, Room 108, (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" 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 also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed 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.

**For this class, which meets 2 sessions per week for 15 weeks, the maximum number of sessions a student may miss for attendance purposes is 4 sessions during the semester.**

**ACADEMIC DISHONESTY POLICY:** The STC Academic Dishonesty Policy states *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 *STC Catalog and Student Handbook.*

#### **Procedure for Academic Misconduct**

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

##### **--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.

##### **--Second Offense--**

Student is given a grade of "WF" 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.

##### **--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 second 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.

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**STATEMENT OF NON-DISCRIMINATION:** Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era 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).

**GRIEVANCE PROCEDURES:** Grievance procedures can be found in the Catalog and Handbook located on STC's website.

**ACCESS TO TECHNOLOGY:** Students can now access Angel, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the STC website at [www.southeasterntech.edu](http://www.southeasterntech.edu).

### **TCSG 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.



**ALMA 1000 Allied Health Math Applications  
Lesson Schedule  
FALL 2015**

DATE	Chapter /Lesson	Content Assignment/Exams/Evaluations	Course Competency/Gen. Ed Comp.
<b>Week 1</b> Aug. 18	House Keeping	Syllabus, Policy & Procedures ALMA 1000 Pre-Test Connect instructions	
Aug. 20		Classroom review of Whole numbers (Handout) Chapter 1- Fractions review & classroom activity	
<b>Week 2</b> Aug. 25	Chapter 1	<b>Complete Connect Chapter 1- Fractions Homework</b> <b>Complete Connect Pretest Chapter 1</b>	
Aug. 27		<b>TEST Chapter 1 – Fractions</b> Review test on Fractions <b>Connect Homework Chapter 2 - Decimals</b>	Basic Mathematics in Health Science/1,2,3,4
<b>Week 3</b> Sept. 1	Chapter 2	Chapter 2 – Decimals classroom review & activity <b>Connect Pretest for Chapter 2</b>	
Sept.3		<b>TEST Chapter 2 – Decimals</b> Review test on Decimals <b>Complete Connect Homework Chapter 3</b>	Basic Mathematics in Health Science/1,2,3,4
<b>Week 4</b> Sept. 8	Chapter 3	Classroom review & activity Chapter 3 Percent, Ratios & Proportions <b>Complete Connect Pretest for Chapter 3</b>	
Sept. 10		<b>TEST Chapter 3 – Percent, Ratio and Proportion</b> Review test on Ratio and Proportion <b>Complete Connect Chapter 4 Homework</b>	Basic Mathematics in Health Science/1,2,3,4
<b>Week 5</b> Sept. 15	Chapter 4	Classroom review & activity Chapter 4 - Metric System <b>Connect Pretest for Chapter 4 - Metric System</b>	
Sept. 17		<b>TEST Chapter 4 – Metric System</b> Review test on Metric System <b>Complete Connect Homework Chapter 5 - Other Systems of Measurement</b>	
<b>Week 6</b> Sept. 22	Chapter 5	Classroom review & activity Chapter 5 - Other Systems of Measurement <b>Complete Connect Pretest for Chapter 5 – Other Systems of Measurement</b>	
Sept. 24		<b>TEST Chapter 5 – Other Systems of Measurement</b> Review test on Other Systems of Measurement <b>Complete Connect Homework Chapter 6 &amp; 7 Using Conversion Factors, Temperature &amp; Time</b>	Basic Mathematics in Health Sciences Problem Solving/1,2,3,4
<b>Week 7</b> Sept. 29	Chapter 6 & 7	Classroom review & activity Chapter 6 & 7 - Using Conversion Factors, Temperature & Time <b>Connect Pretest for Chapter 6&amp;7</b>	

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Oct. 1		<b>TEST Chapter 6 &amp; 7- Using Conversion Factors, Temperature &amp; Time</b> Review test on Using Conversion Factors, Temperature & Time <b>Complete Connect Homework Chapter 8 Equipment for Dosage Measurement</b>	Weight and Measurement in Health Sciences/1,2,3,4
<b>Week 8</b> Oct. 6	Chapter 8	Classroom review & activity/lab Chapter 8 Equipment for Dosage Measurement <b>Connect Pretest for Chapter 8</b>	Conversion Applications in Health Science Problem Solving Medical Terminology Used in Health Science Math Applications/1,2,3,4
Oct. 8		<b>TEST Chapter 8 – Equipment for Dosage Measurement</b> Review Chapter 8 test <b>Complete Connect Homework Chapter 9 Interpreting Medication Orders</b>	Weight and Measurement in Health Sciences Problem Solving/1,2,3,4
<b>Week 9</b> Oct. 13	Chapter 9	Classroom review & activity/application lab Chapter 9 <b>Connect Pretest for Chapter 9</b>	
Oct. 15		<b>TEST Chapter 9 – Interpreting Medication Orders</b> Review Chapter 9 test <b>Complete Connect Homework Chapter 10 - Interpreting Medication Labels and Package Inserts</b>	Weight and Measurement in Health Sciences Problem Solving/1,2,3,4
<b>Week 10</b> Oct. 20	Chapter 10	Classroom review & activity Chapter 10 <b>Connect Pretest for Chapter 10</b>	
Oct. 22		<b>Fall Activity Day</b>	
Oct. 27		<b>TEST Chapter 10 – Interpreting Medication Labels and Package Inserts</b> Review test on Conversions <b>Complete Connect Homework Chapter 12- Methods of Dosage Calculations</b>	Medical Terminology Used in Health Science Math Applications Weight and Measurement in Health Sciences Problem Solving/1,2,3,4
<b>Week 11</b> Oct. 29	Chapter 12	Classroom review & activity Chapter 12 Methods of Dosage Calculations <b>Connect Pretest for Chapter 12</b>	
Nov. 3		<b>TEST Chapter 12 - Methods of Dosage Calculations</b> Review test on Methods of Dosage Calculations <b>Complete Connect Homework Chapter 13 Oral Dosages</b>	Medical Terminology Used in Health Science Math Applications Weight and Measurement in Health Sciences Problem Solving Conversion Applications in Health Science/1,2,3,4
<b>Week 12</b> Nov. 5	Chapter 13	Classroom review & activity/application lab Chapter 13 <b>Dosages Connect Pretest for Chapter 13</b>	



Nov. 10		<b>TEST Chapter 13 – Oral Dosages</b> Review test on Oral Dosage <b>Complete Connect Homework Chapter 14</b> <b>Parenteral Dosages and Other Medication Administration Forms</b>	Medical Terminology Used in Health Science Math Applications Weight and Measurement in Health Sciences Problem Solving Conversion Applications in Health Science/1,2,3,4
<b>Week 13</b> Nov. 12	Chapter 14	Classroom review & activity/application lab Chapter 14 <b>Connect Pretest for Chapter 14</b>	
Nov. 17		<b>TEST Chapter 14 – Parenteral Dosages and Other Medication Administration</b> Review test Basic IV Calculations (Handout)	Basic Principles of Medication Administration/1,2,3,4
<b>Week 14</b> Nov. 19	Basic IV Calc.	Classroom review of Basic IV Calculations & Classroom activity	
Nov. 24		<b>TEST Basic IV Calculations</b> Review test on Intravenous Calculations Classroom review for Final Exam (Handout)	Weight and Measurement in Health Sciences Problem Solving Conversion Applications in Health Science/1,2,3,4
Nov. 26		<b>No Class- Thanksgiving Holiday</b>	
<b>Week 15</b> Dec. 1		<b>FINAL EXAM</b>	Basic Mathematics in Health Science Problem Solving Conversion Applications in Health Science Weight and Measurement in Health Sciences Basic Principles of Medication Administration/1,2,3,4