

SOUTHEASTERN LOUISIANA UNIVERSITY
MATHEMATICS 105 SYLLABUS
FALL 2017

COURSE TITLE: Finite Mathematics

CREDIT: 3 semester hours

ONLINE TEXT: *Finite Mathematics*, 13th Edition with *MyMathLab*, by Barnett, Zeigler, Byleen **PUBLISHER:** Pearson Education

PREREQUISITE: A score of 19 or above on the Mathematics section of the ACT, or an appropriate score on the Accuplacer exam, or satisfactory completion of the appropriate developmental Math course.

COURSE DESCRIPTION: An introductory level course covering mathematical ideas appropriate for students majoring in disciplines that do not require calculus or calculus-preparation courses, including algebra and trigonometry. Topics include linear equations and linear inequalities, linear programming, matrix theory, sets and counting techniques, permutations and combinations, financial math, and an introduction to probability and statistics. The weekly structure of the course includes 2-hours of in-class instruction and 3-hours of computer laboratory work in the Math Technology Learning Center in Sims Library 208.

SPECIFIC COURSE OBJECTIVES – The section numbers in the textbook covering these topics are given after the topic.

TEST 1 Objectives:

- Be able to solve applied problems involving simple interest. (3.1)
- Be able to solve applied problems involving compound interest. (3.2)
- Be able to solve applied problems involving future value of an investment. (3.3)
- Be able to solve applied problems involving present value of an investment. (3.3)
- Be able to solve applied problems involving sinking funds. (3.4)
- Be able to solve applied problems involving annuities. (3.4)
- Be able to use the financial application on a graphing calculator to solve problems involving amortization. (3.3, 3.4)
- Be able to distinguish between the different types of financial problems and choose the correct approach to find the answers requested.

TEST 2 Objectives:

- Be able to use appropriate set language and set notation. (7.2)
- Know the requirements of having a "well-defined" set. (7.2)
- Be able to define a set using listing, description, or set-builder notation. (7.2)
- Perform the set operations of union, intersection, and complement given definitions of sets. (7.2)
- Find unions, intersection, and complements of sets via Venn Diagrams. (7.2)
- Identify subsets of a given set. (7.2)
- Know how many subsets exist for a set of a given cardinality. (7.2)
- Use basic counting principles to solve applied problems. (7.3)
- Know the definitions of an event, a sample space, and the probability of an event. (7.3)
- Be able to use Venn Diagrams to find probabilities. (7.3)
- Find probabilities of events in applied problems. (8.1, 8.2)
- Know the relationships between the probability of an event, the odds in favor, and the odds against. (8.1, 8.2)

TEST 3 Objectives:

- Solve applied problems using proportional reasoning and ratios.
- Solve linear equations.
- Create frequency distributions for applied problems.(11.2)
- Determine measures of central tendency (mean, median, mode) in applied problems. (11.2)
- Determine measures of variation (range, standard deviation) in applied problems. (11.3)
- Find the five-number summaries (minimum, Q1, median, Q3, and maximum) and create boxplots for applied problems. (11.3)
- Be able to interpret all measures of central tendency, variation, percentiles and quartiles in applied problems. (11.2, 11.3)
- Use normal distribution percentages (68-95-99.7% rule) in applied problems. (11.5)
- Find and interpret Z-scores in applied problems. (11.5)

TEST 4 Objectives:

- Find intercepts for linear equations in two variables. (4.1)
- Graph linear equations in two variables. (4.1)
- Solve systems of linear equations in two variables by hand using substitution and elimination methods. (4.1)
- Create the augmented matrix corresponding to a given linear system, and vice-versa. (4.2)
- Solve augmented matrices using the reduced-row echelon form function on a calculator. (4.2)
- Solve applications of linear systems. (4.2)
- Perform basic operations on matrices by hand (addition, subtraction, multiplication, scalar multiplication) and be able to show all intermediate steps. (4.4)
- Solve applied problems using matrices and matrix operations. (4.4)
- Graph linear inequalities in two variables. (5.1, 5.2)
- Graph systems of linear inequalities in two variables. (5.2)
- Solve linear programming problems using the graphical approach. (5.3)
- Solve applied optimization problems using linear programming. (5.3)

CALCULATOR REQUIREMENT: The TI-83, 84, 83+, or 84+ (or a comparable calculator) is required.

EMAIL REQUIREMENT: All correspondence will be made through your Southeastern email account.

If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Student Union, Room 1304. No accommodations will be granted without documentation from the Office of Disability Services. The deadline for registering or making accommodation changes is two weeks prior to the start of the Final Exam period. Any requests received after the deadline will generally be considered for the following semester.

If you are the victim of a sexually oriented crime, please be aware that the University Policy regarding Victims of Sexual Misconduct is located online at www.southeastern.edu/resources/policies/assets/sexual_misconduct.pdf as well as at page 68 in the University Student Handbook at http://www.southeastern.edu/admin/stu_affairs/handbook/index.html. The policy includes definitions of the various sexually oriented offenses prohibited by Southeastern as well as the reporting options for victims and the process of investigation and disciplinary proceedings of the university. For more information log onto http://www.southeastern.edu/admin/police/victims_soc/index.html.

COURSE GRADES: Percentages earned as follows determine the course grade.

4 Tests (10% each)	= 40% of course grade
Final Exam	= 20% of course grade
Quizzes	= 12% of course grade
Homework	= 12% of course grade
Lab Participation	= 10% of course grade
Workbook	= 6% of course grade

COURSE GRADING SCALE

90% - 100%	= A
80% - 89.9%	= B
70% - 79.9%	= C
60% - 69.9%	= D
below 60%	= F

The last day to drop this course is Friday, November 3, 2017, 12:30 p.m. No withdrawals from this course can be made after this date.

1% will be added to a student's final average if he or she scores 50% or higher on all four practice tests.

Partial credit will not be awarded on a test unless a student completes the associated practice test with at least 50% accuracy.

Partial credit on the Final Exam will not be rewarded unless a student completes *each* Final Exam Prep Quiz with at least 70% accuracy.

TESTING:

All testing will be done in the Mathematics Technology Learning Center in Sims Library, Room 208. Students should pay attention to notices given throughout the semester with testing sign-up information. Consult your daily schedule online for testing dates.

During testing, the Sims Library Math Lab will not be available for tutoring, homework, or quizzes. Instead, Fayard 119 will be utilized for tutoring during testing days (with limited hours).

Please read [Test Rules](#) on page 3 of this syllabus for detailed information on test reservation and test taking procedures.

Students are expected to maintain the highest standards of academic integrity. Behavior that violates these standards is not acceptable.

Examples are the use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student and similar behavior that defeats the intent of an examination or other class work. Cheating on examinations and plagiarism are considered very serious offenses and shall be grounds for disciplinary action as outlined in the current [General Catalogue](#).

Cumulative lab hours are counted on a weekly schedule TBA by section.

You must swipe your Student ID upon every entrance and exit to the lab to receive credit for your attendance. No exceptions.

NOTE: PEAK LAB TIMES ARE EXPECTED TO BE MIDDAY.

TO AVOID WAIT TIMES, TRY TO ATTEND THE LAB AT OFF-PEAK HOURS.

HOMEWORK: Homework will be assigned for each section. Homework need not be completed in one sitting, but it must be completed before the expiration date and time. **You must click the "Submit Homework" button in order for it to count.** At the end of the semester, the two lowest homework scores will be dropped.

QUIZZES: There will be a quiz given approximately once a week, usually on material covered in two class periods. You will be able to submit quizzes up to 10 times (with the best score counted). These must also be completed before the expiration date and time. **You must click the "Submit" button in order for it to count.** At the end of the semester, the two lowest quiz scores will be dropped.

MAKE-UP POLICY:

- **No makeup work on homework or quizzes will be allowed.** The two lowest quiz grades and the two lowest homework grades will be dropped at the end of the semester.
- The first test missed due to a **serious, verifiable** circumstance will be replaced with the final exam grade. Students who must miss work or tests due to official University business must make arrangements for makeup work **beforehand**. Students must take excuses to their instructors.

WORKING FROM HOME: The Math 105 online material can be accessed from a student's personal computer. Internet access and the appropriate plug-ins are required in order to use the website where the notes, homework, and exercises are found. The website for this course can be found at www.pearsonmylabandmastering.com. Once you have registered for your class site in *MyMathLab*, you will be able to login to the site from home with your login and password. Click into your course and run the **Browser Check** found on the main page of your course to ensure the correct setup on your own computer. NOTE: Ensure that all homework and quizzes submitted from home are properly saved on the site. You should check your scores online to ensure that credit is assigned. If homework and quiz grades are not successfully sent from home and the deadline passes, the student may not be able to make up the work.

PARTICIPATION POLICIES:

- **Class Meetings:** Every student is **required** to attend and actively participate in regular in-class instruction as listed on your class schedule. The time for the class meeting is **not** counted toward your 3-hour lab work requirement.
- **Lab work:** Every student is required to work on mathematics in the MTLC for a minimum of 3 hours every week (variations due to holidays and testing will be made). **Attendance is counted on a weekly schedule determined by section.** Lab attendance each week earns you up to 15 points, determined as follows: at least 3 hours – 15 points, 2 hours to 2 hours, 59 minutes – 10 points, 1 hour to 1 hour, 59 minutes – 5 points, less than 1 hour – 0 points. Attendance will be monitored by card swipe, but it is also your responsibility to keep a record of your attendance. Your attendance score will be posted by your instructor who will receive weekly updates and can be checked on the gradebook application in *MyMathLab*. The last week of classes can be used to gain up to 10 attendance points to replace two hours of lab time previously missed.

MTLC RULES

1. The MTLC is a math classroom. Please be quiet during your visits to the MTLC.
2. The monitor will swipe your ID card when you enter the MTLC and swipe it when you leave, even for a short break. Do not present any ID card other than your own. No attendance credit will be given to students who do not have their ID cards.
3. Cell phones, food, drinks (including water), tobacco products, and companions are NOT allowed in the Center. A cell phone violation may cause you to be asked to leave the MTLC. Your cell phone needs to be out of sight and turned OFF.
4. Other than mathematics, no activity such as talking, sleeping, or working on assignments for other classes is allowed in the MTLC. Any violation will cause your attendance credit to be 0 for that day, and you will be asked to leave the MTLC.
5. **While in the MTLC, you may only access MyMathLab. No other websites** (URLs) are allowed (such as email or facebook).
6. The use of a computer in the MTLC is on a first-come, first-served basis; no reservation can be made for normal course work. (Reservations **are required** for tests. Details on procedures for sign-up will be announced by your instructor.)
7. Please do not hesitate to ask questions in the MTLC. Tutors and faculty members are there to help you.

TEST RULES

1. There are four 75-minute tests and a 105-minute comprehensive final exam. Test dates are listed on the Daily Schedule found on your class site. Testing time blocks may begin at 9:30 am, 11:00 am, 12:30 pm, 2:00 pm, 3:30 pm, and/or 5:00 pm.
2. **Test registration is required.** Information will be given out in class, and emails will alert you when test reservations are available. Every student must have some type of reserved test time to assure you can be accommodated during the testing period. You may change your test time freely during open registration as long as slots are available.
3. Arrive on time for your test. Your reservation may be cancelled if you are more than 10 minutes late. Bring your ID and pencils with you to take your test. The MTLC will provide you with scratch paper. No other paper is allowed. Place all belongings on the floor beneath the table where you are sitting. Once you have entered the testing room, all review material must be put away.
4. Absolutely **no cell phones** are allowed during testing. All cell phones must be turned OFF and put away out of sight. Use of cell phones during a test will result in a charge of academic misconduct and a score of ZERO on the test.
5. **No IPODS** or other music devices may be used during tests. Use of these during a test will result in a charge of academic misconduct and a score of ZERO on the test.
6. You may **not** write down any information pertaining to test questions to take with you when you leave the MTLC after an exam. All scratch paper will be collected before you are allowed to leave. You may not share any test information with anyone who hasn't taken the test.
7. If you fail to show up during your reserved time, you will need to reregister for another test time, if available, during the designated test days. This should be your immediate priority and should be done as soon as possible. Any change in registration is subject to availability of computers. **You may be taking a chance of not having other available testing periods if you miss your first appointment.**

Expectations regarding student behavior/classroom decorum: Free discussion, inquiry, and expression is encouraged in this class. Classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of students to benefit from the instruction is not acceptable. Examples may include routinely entering class late or departing early; use of communication devices, or other electronic devices; repeatedly talking in class without being recognized; talking while others are speaking; or arguing in a way that is perceived as "crossing the civility line." Classroom behavior which is deemed inappropriate and cannot be resolved by the student and the faculty member may be referred to the Office of Judicial Affairs for administrative or disciplinary review as per the Code of Student Conduct which may be found at http://www.selu.edu/admin/stu_affairs/handbook/. According to Southeastern Louisiana University policy, students cannot bring children to any classroom for daycare or babysitting.

Important Dates for Regular Session Classes

1. **Wednesday, August 16:** First day of class
2. **Wednesday, August 16 – Thursday, August 17:** Drop/Add Period until 5:00 p.m.
3. **Monday, September 11:** Academic Checkpoint I
4. **Friday, October 6:** Academic Checkpoint II
5. **Thursday, October 12 – Friday, October 13:** Fall Break
6. **Friday, November 3 at 12:30 pm:** Last day to withdraw or resign from classes
7. **Wednesday, November 22 – Friday, November 24:** Thanksgiving Holidays
8. **Friday, December 1:** Last day of classes
9. **Monday, December 4 – Friday, December 8:** Final Examinations
10. **Monday, December 11:** Last day to return rental textbooks without a fine
11. **Friday, December 15:** Student accounts will be charged for any rental books not returned by 12:30 p.m.

University offices will be closed on:

Labor Day - September 4;
Fall Break - October 12-13;
Thanksgiving holidays - November 22-24;
Christmas & New Year holidays - December 19-January 2nd.

The hours of operation for dining services will be modified when university classes are not in session. Please refer to www.southeastern.edu/auxservices for further information.