Lincoln University

Math 10 – College Mathematics

COURSE SYLLABUS
Summer 2019

Instructor: Len Filane, Ph.D.
Lecture Schedule: Tuesday, Thursday 3.30 – 6.15 pm
Credits: 3 units / 45 lecture hours
Level: Introductory (I)
Office Hours: TBD
e-mail: lfilane@lincolnuca.edu
Textbooks: **Knewton alta Intermediate Algebra v2**, Publisher: Knewton, Edition 2nd ISBN: 978-1-63545-084-2

Optional Textbook: Blitzer, Robert F. **Intermediate Algebra for College Students.** 7th. Prentice Hall. 2016 ISBN-13: 978-0134178943
Last Revision: June 2, 2019

DISCLAIMER

This syllabus may be changed or updated according to instructor discretion.

CATALOG DESCRIPTION

Algebra: fundamental algebraic concepts and operations, number bases, linear equations and inequalities, functions, graphing. Graphs and functions: study of functions including exponents and radical polynomials, geometric series, rational expressions, quadratic equations, and logarithms.

COURSE LEARNING OUTCOMES[1]

	Course LO	Program LO	Institutional LO	Assessment
1	Analyze, interpret, and communicate results of exponential, logarithmic, rational, and discrete models in a logical manner from four points of view – visual, formula, numerical, and written.	GELO 3	ILO 1a, ILO 2a	Quizzes, assigned problems

[1] Detailed description of learning outcomes and information about the assessment procedure are available at the Center for Teaching and Learning website (ctl.lincolnuca.edu).

2	Evaluate real-world situations and distinguish between and apply exponential, logarithmic, rational, and discrete function models appropriately.	GELO 5	ILO 1a	Quizzes, assigned problems

INSTRUCTIONAL METHODS

This is a classroom and online instruction course.

Lecture is used in conjunction with online adaptive learning to provide a rich learning experience for the student. The course requires the practical use of a computer and the internet to do assignments, quizzes and tests. The emphasis will be on learning by doing. Each student must participate in daily activity, but you may work ahead and it is best to be ahead of assignments to give you buffer time when struggling and needing any extra help.

Assignments and projects require students to actively use resources of the library. Detailed guide to business *resources of the library* as well as the description of Lincoln University approach to *information literacy* are available at the Center for Teaching and Learning website (ctl.lincolnuca.edu).

ACADEMIC HONESTY & INTEGRITY HONOR CODE

The faculty, administration, and staff reinforce academic honesty and principles of academic honor. Independent learning is vital to the requirements of honesty and integrity in the performance of academic assignments, both in the classroom and outside. Students should avoid academic dishonesty in all of its forms, including plagiarism, cheating, and other forms of academic misconduct. The University reserves the right to determine what constitutes a violation of academic honesty and integrity.

ASSESSMENT

THREE CLASS QUIZZES
HOMEWORK
CLASS DISCUSSIONS
MIDTERM EXAM
FINAL EXAM

CALCULATION OF FINAL GRADES:

Homework: 5%
Quizzes : 20%
Midterm Exam: 25%
Final Exam : 35%
Class Participation: 15%

GRADING SCALE: (Should follow Department and/or College Template)

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F	
GPA Points		4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	0.0
%	100-93	92.9-90	89.9-88	89.9-82	81.9-80	79.9-78	77.9-72	71.9-70	69.9-67	66.9-60.1	60 and under	

CLASS WORK (participation):

Your goal should be to demonstrate the grasp of the concepts, ability to solve problems and critical thinking skills in analyzing them. You should strive to ask relevant questions, volunteer relevant answers, as well as volunteer to solve problems on the board, actively participate in class discussions. Class work is graded on the scale of 0-10.

I do not allow re-takes or make up of the quizzes and exams.

HOMEWORK

Written HW is graded on the scale 0-10.Since its impossible for me to exactly predict the rate of covering the material, I will give homework every class, as we move forward. I will collect homework on selected days only. Bring your current homework to every class. Your homework must be stapled, be neat and legible. Avoid submitting "dog ears"! If you write chaotically I would not be able to follow your work, hence I will not be able to grade it. HW that does not meet the above outlined requirements will be rejected and awarded zero points.
Show your work in detail. If you do not show all the work required to complete the homework problems, I will reduce your homework credit. Just showing the answer will not be accepted for any credit.
All homework is to be done by the enrolled student and must be your own work. Any attempt to copy or re-use homework or share the same work between the students will result in zero credit.
No late homework will be accepted. I will not accept any HW after my announcement of the end of the collection process. If you know that you will be absent in class, please email your scanned homework to me prior to the beginning of the current class. If you have a question or an issue regarding your HW, then the best way to resolve it is after class hours.
Do not copy the solutions from the instructor's solution manual or online. If you do it, you will be guilty of plagiarism which is a violation of student conduct code, and may result in you being disciplined, suspended from class or expelled from the school.
UNIVERSITY ATTENDANCE POLICY:
Lincoln University uses the class method of teaching, which assumes that each student has something to contribute and something to gain by attending class. It further assumes that there is much more instruction absorbed in the classroom than can be tested on examinations. Therefore, students are expected to attend all regularly scheduled class meetings and should exhibit good faith in this regard.

INSTRUCTOR's ATTENDANCE POLICY:

Attendance is mandator. I frown on tardiness. If you are frequently late to class, please review your schedule and make the necessary adjustments. Late arrivals are disruptive to class, they adversely affect the performance of all.
If you are late to a quiz or exam you will not be allowed to take it.

UNIVERSITY ACADEMIC INTEGRITY STATEMENT:

Students are responsible for proper conduct and integrity in all of their scholastic work. They must follow a professor's instructions when completing tests, homework, and laboratory reports, and must ask for clarification if the instructions are

COURSE SCHEDULE

Week 1-Tu Solving Linear Equations in One Variable Solving Linear Equations with Fraction and Decimal Coefficients An Introduction to Problem Solving Percent Change and Interest Applications Literal Equations and Using Formulas with Geometry Mixture Problems with Coins, Tickets, or Stamps	**Week 1- Thu** Mixture Word Problems and Uniform Motion Solving Linear Inequalities Solving Compound Inequalities Solving Absolute Value Equations and Inequalities
Week 2-Tu The Rectangular Coordinate System and Graphing Linear Equations Graphing Linear Equations with Intercepts The Slope of a Line Graphing Linear Equations with Slope Applications of Slope and Parallel and Perpendicular Lines Equations of Lines **QUIZZ 1**	**Week 2-Thu** Equations of Parallel and Perpendicular Lines Graphing Linear Inequalities Introduction to Functions Function Notation The Vertical Line Test and Graphs of Functions
Week 3 -Tu Solving Systems of Linear Equations in Two Variables by Graphing Solving Systems of Linear Equations in Two Variables Algebraically Systems of Linear Equations in Two Variables and Problem Solving Mixture Problems and Systems of Linear Equations in Two Variables Solving Systems of Linear Equations in Three Variables Solving Systems of Linear Inequalities	**Week 3-Thu** Adding and Subtracting Polynomials and Polynomial Functions Multiplying Polynomials Special Products of Binomials and Multiplying Polynomial Functions Dividing Polynomials and Polynomial Functions **QUIZZ 2**
Week 4 -Tu Use synthetic division to divide polynomials Use the remainder and factor theorems The Greatest Common Factor and Factoring by Grouping Factoring Trinomials Factoring Special Products Choosing a Factoring Strategy Solving Polynomial Equations by Factoring Manage	**Week 4-Thu**

Domain of Rational Expressions and Simplifying Rational Expressions Multiplying and Dividing Rational Expressions Adding and Subtracting Rational Expressions Simplifying Complex Rational Expressions Solving Polynomial Equations by Factoring	
Week 5-Tu **MIDTERM EXAM**	**Week 5-Thu** Operations with Radical Expressions Dividing Radical Expressions and Rationalizing Denominators Solving Rational Equations and Using Rational Functions Proportions and Similar Figures with Rational Equations Uniform Motion, Work, and Problem Solving Understanding Radical Expressions Simplifying Radical Expressions Rational Exponents
Week 6-Tu Solving Radical Equations Radical Functions Introduction to Complex Numbers Multiplying and Dividing Complex Numbers and Powers of i **QUIZ 3**	**Week 6-Thu** Solving Quadratic Equations Using the Square Root Property Solving Quadratic Equations by Completing the Square Solving Quadratic Equations Using the Quadratic Formula Solving Equations by Using Quadratic Methods Problem Solving with Quadratic Equations Parabolas and Their Properties Graphing Quadratic Functions
Week 7-Tu Transformations of Parabolas Graphing Quadratic Functions Introduction to Logarithms **Review**	**Week 7-Thu** **FINAL EXAM**