**Lincoln University**

**Department of Mathematical Sciences**

**Master Course Syllabus**

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| --- | --- | --- | --- |
| **Course Title:** | College Algebra | **Course number:** | **MAT110 / MAT110L** |
| **Credit Hours** | 4 | **Prerequisite (s):** | **MAT099** |
| **Term:** |  | **Co-Requisite (s)** |  |
| **Course Method** | Lecture / Lab | **Meeting day and Time:** | **3 hrs lecture + 2 hrs. lab** |
| **Instructor:** |  | **Classroom/lab/Studio Location:** |  |
| **Office location:** |  | **e-mail:** |  |
| **Office Hours:** |  | **Phone Extension:** |  |

**COURSE DESCRIPTION:**

This course is an introduction to the basic algebraic techniques, functions, and graphs, which are used in a wide variety of higher-level applications. Topics include solving equations and inequalities, graphing equations and functions, characteristics of functions and graphs, and using algebra in problem solving.

**REQUIRED TEXT:**

**ALEKS 360** with E-book Miller/Gerkin. College Algebra Essentials (1st Edition) . McGraw-Hill, 2014.

**REQUIRED MATERIALS:** The ALEKS code will be provided in lab and charged as a lab fee.

**Assessment Criteria & Alignment (usE Numbers only)**

|  |  |  |  |
| --- | --- | --- | --- |
| CSLOs | PSLOs | ILOs | Direct and Indirect Assessment Methods |
| CSLO 1 | N/A | ILO\_7 | ALEKS Assessment, Homework & Participation, Tests & Final Exam\* |
| CSLO 2 | N/A | ILO\_7 | ALEKS Assessment, Homework & Participation, Tests & Final Exam\* |
| CSLO 3 | N/A | ILO\_7 | ALEKS Assessment, Homework & Participation, Tests & Final Exam\* |

\* See additional information at end of syllabus.

**Course Student Learning Outcomes (CSLO):**

Upon successful completion of this course the student will:

* CSLO 1 Solve a variety of equations and inequalities and use them in application problems.
* CSLO 2 Evaluate, graph, and describe the characteristics of functions and relations, and use them in modeling.
* CSLO 3 Apply appropriate techniques to describe and graph basic types of functions and their transformations.

**Program Student Learning Outcomes (PSLO):** N/A

**Institutional Learning Outcomes (ILO):**

**ILO 7: Scientific & Quantitative Reasoning:**

Quantitative Reasoning represents the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. Students will be able to create arguments supported by quantitative evidence and can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, and computer programs as appropriate).

**Calculation of Final Grades**:

|  |  |
| --- | --- |
| Homework on ALEKS | 10% |
| Lab Participation | 10% |
| Tests (3 at 20% each) | 60% |
| Cumulative Final Exam | 20% |

**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 | 87.9-82 | 81.9-80 | 79.9-78 | 77.9-72 | 71.9-70 | 69.9-67 | 66.9-60.1 | 60 and under |

**SCHEDULE OF LEARNING topics covered**

|  |  |
| --- | --- |
| **Schedule of Assignments**  *\*\*Assignment Selection and schedule may be subject to change\*\** | |
| Week 01 | Prerequisite Review - ALEKS Initial Assessment & Review |
| Week 02 | Read 1.1 Linear Equations  Read 1.7 Linear Inequalities  Read 1.3 & 4 Quadratic Equations  Read 1.6 Other Equations  Read 1.8 Absolute Value  Read 1.2 & 1.5 Application Problems  Test Unit 1 |
| Week 03 |
| Week 04 |
| Week 05 |
| Week 06 | Read 2.1 & 2.2 Distance, Midpoint & Circles,  Read 2.4 Lines  Read 2.3 & 2.5 Functions & Relations  Read 2.7 Characteristics of Functions  Read 2.8 Combinations of Functions    Test Unit 2 |
| Week 07 |
| Week 08 |
| Week 09 |
| Week 10 | Read 2.6 Transformations of Functions  Read 3.1 Quadratic Functions & Applications  Read 3.2 Polynomial Functions & Graphs,  Read 3.3 Division of Polynomials  Read 3.4 Zeros of Polynomials  Read 3.6 Polynomial Inequalities    Test Unit 3 |
| Week 11 |
| Week 12 |
| Week 13 |
| Week 14 | Course Review - ALEKS Practice Final Exam  ALEKS Final Assessment |
| Week 15 | Final Exam Week  Comprehensive Final Exam |

**Schedule of Learning Topics Covered – Math Lab**

|  |  |
| --- | --- |
| **Homework Sets on ALEKS** | |
| Week 01 | ALEKS Homework 1.1 |
| Week 02 | ALEKS Homework 1.2 |
| Week 03 | ALEKS Homework 1.3 |
| Week 04 | ALEKS Homework 1.4 |
| Week 05 | ALEKS Homework 1.5 & 1.6 |
| Week 06 | ALEKS Homework 2.1 & 2.2 |
| Week 07 | ALEKS Homework 2.3 & 2.4 |
| Week 08 | ALEKS Homework 2.5 & 2.6 |
| Week 09 | ALEKS Homework 3.1 |
| Week 10 | ALEKS Homework 3.2 |
| Week 11 | ALEKS Homework 3.3 |
| Week 12 | ALEKS Homework 3.4 |
| Week 13 | ALEKS Homework 3.5 |
| Week 14 | ALEKS Homework 3.6 |
| Week 15 | Final Exam Week |

**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.

• Absences will be counted starting **from the first day classes begin**.

• ***Three*** late arrivals (after 10 minutes) will be counted as one absence.

• After ***Three*** or more unexcused absences, grades may be lowered.

• The student is responsible for all work missed during those absences

• In case of illness, death in the family, other extenuating circumstances, athletic events or other University sanctioned activities the student must present documented evidence of inability to attend classes for an excused absence

<http://www.lincoln.edu/registrar/2016catalog.pdf>

**Students with Disabilities Statement:**

Lincoln University is committed to non-discrimination of students with disabilities and therefore ensures that they have equal access to higher education, programs, activities, and services in order to achieve full participation and integration into the University.  In keeping with the philosophies of the mission and vision of the University, the Office of Student Support Services, through the Services for Students with Disabilities (SSD) Program, provides an array of support services and reasonable accommodations for students with special needs and/or disabilities as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.  The Services for Students with Disabilities Program seeks to promote awareness and a campus environment in which accommodating students with special needs and/or disabilities is natural extension of the University’s goal. Any students with disabilities should contact the Office of Student Support Services.

[http://www.lincoln.edu/student services/index.html](http://www.lincoln.edu/student%20services/index.html).

**The Student Conduct Code:**

Students will be held to the rules and regulations of the Student Conduct Code as described in the Lincoln University Student Handbook. Behavior that disrupts academic pursuits, or infringes upon the privacy, rights, or privileges of other persons is prohibited. It is expected of all students to show respect, fairness and consideration to all present. Excessive talking, arriving late or leaving early, leaving and reentering class, use of phones or pagers, or other means of disrupting the class will not be tolerated and students may be asked to leave. Students who constantly disrupt class may be asked to leave permanently and will receive an “F”.

<http://www.lincoln.edu/studentaffairs/The%20Lincoln%20University%20Student%20Handbook%202016-2017.pdf>

**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 they must ask for clarification if the instructions are not clear. In general, students should not give or receive aid when taking exams, or exceed the time limitations specified by the professor. In seeking the truth, in learning to think critically, and in preparing for a life of constructive service, honesty is imperative. Honesty in the classroom and in the preparation of papers is, therefore, expected of all students. Each student has the responsibility to submit work that is uniquely his or her own. All of this work must be done in accordance with established principles of academic integrity.

Academic Dishonesty includes, but is not limited to offering, using and/or receiving unauthorized assistance, information, or materials during a test or exam.

Sanctions for violations of the academic integrity standards include:

* Warning: Attempted or implied act of misconduct.
* Failure of a Test: Observed incident of misconduct during an exam or on the test paper.
* Failure of Course and an official report of academic dishonesty: Blatant and/or pervasive cheating on an exam or repeated incidents in the class.

<http://www.lincoln.edu/registrar/2016catalog.pdf>

**Policy on Electronic Devices in the Classroom:**

Electronic devices (cell phones, tablets, laptops, etc.) may not be used in class except for educational purposes (e.g. notetaking, recording assignments, etc). Students who violate this policy will receive a verbal warning for the first infraction and additional violations may result in the student being asked to leave class. Use of these devices during exams will be considered as academic dishonesty and will be subject to the sanctions described in the previous section.

**Assessment Methods (Tools) Direct & Indirect:**

ALEKS:

Students will be required to use ALEKS in and out of lab. Each student must complete an initial and final assessment, homework sets assigned on material covered in class by the scheduled due dates, and take part in all other activities or assignments given during the required weekly lab period.

Tests and Final Exam

There will be three one-hour in-class unit exams and a cumulative comprehensive two hour Final Exam. No calculators, phones, or other electronic devices are allowed during exams. **ALL** work must be shown on the test paper for credit.

Note: Any student requesting special testing conditions due to disability must provide documentation at the beginning of the semester and make any needed arrangements before the exam.

Make-Up Exams  
Make-up exams will only be allowed with ***official documentation*** of an unavoidable absence, and the student must have notified the instructor either **beforehand or within 24 hours** of the exam and scheduled the make-up promptly upon return to campus.

Lab Participation: This includes mandatory attendance in lab sessions and completion of lab assignments.

Resources

Students are also encouraged to make regular visits during office hours, to meet in study groups, and to use the Learning Resource Center Math Lab and the SI or Math tutors from the School of Science & Technology.