**Lincoln University**

**Math Program/Department of Mathematical Sciences**

**Master Course Syllabus**

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| --- | --- | --- | --- |
| **Course Title:** | Intermediate Algebra | **Course number:** | MAT-102 |
| **Credit Hours** | 3 | **Prerequisite (s):** | MAT 098 or Placement |
| **Term:** |  | **Co-Requisite (s)** |  |
| **Course Method** | Lecture + ALEKS in MAT Lab | **Meeting day and Time:** |  |
| **Instructor:** |  | **Classroom/lab/Studio Location:** |  |
| **Office location:** |  | **e-mail:** |  |
| **Office Hours:** |  | **Phone Extension:** |  |

**COURSE DESCRIPTION:** This course consists of selected topics that include factoring polynomials, rational expression, systems of linear equations and inequalities, roots and radicals. *Prerequisite: MAT 101 or Placement*

**REQUIRED TEXT:** ALEKS 360 with E-book, Bello. Introductory Algebra: A Real World Approach. ISBN: 9780077613808. 4th Edition. McGraw Hill.

**REQUIRED MATERIALS:** (Provide information on any additional materials, tools, kits, media storage, etc. required for completion of this course that students will need to purchase or will be charged a lab fee for.)

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

|  |  |  |  |
| --- | --- | --- | --- |
| Course SLO | PSLOs  (indicate #only) | ILOs  (indicate  #only) | Direct and Indirect Assessment Methods |
| CSLO 1 | NA | ILO\_7 | **Direct:** Embedded problems in the final exam  **Indirect:** Problems, Tests, knowledge checks, Discussion |
| CSLO 2 | NA | ILO\_7 | **Direct:** Embedded problems in the final exam  **Indirect:** Problems, Tests, knowledge checks, Discussion |
| CSLO 3 | NA | ILO\_7 | **Direct:** Embedded problems in the final exam  **Indirect:** Problems, Tests, knowledge checks, Discussion |
| CSLO 4 | NA | ILO\_7 | **Direct:** Embedded problems in the final exam  **Indirect:** Problems, Tests, knowledge checks, Discussion |

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

**CSLO 1:** Factor polynomials using a variety of techniques and solve quadratic equations by

Factoring

**CSLO2**: Simplify and combine rational expressions and solve rational equations

**CSLO 3**: Solve systems of linear equations and inequalities

**CSLO 4:** Simplify and combine radical expressions and solve equations

**Program Student Learning Outcomes (PSLO):** (List only those assessed with this course.) **(General Education courses skip to next section.)**

**Institutional Learning Outcomes (ILO):**

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

**Calculation of Final Grades**:

Class attendance, participation and quizzes………………………………………….10%

Tests (one test per SLO)………………………………..............................................40%

Cumulative Final Exam………………………………………………………………20%

MAT Lab/ALEKS Assignments……………………………………………………..30%

**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 |
| % | 100-92 | 88-91 | 85-87 | 84-82 | 78-81 | 75-77 | 74-72 | 68-71 | 65-67 | 58-64 | 57 and under |

**SCHEDULE OF LEARNING topics covered**

|  |  |
| --- | --- |
| **Class Meets:**  **•ASSIGNMENT SELECTION & SCHEDULE MAY BE SUBJECT TO CHANGE•** | |
| **Week 01:** | **Chapter 5 Factoring**  5.1. Common Factors and Grouping |
| **Week 02:** | 5.2. Factoring x2 + bx + c  5.3. Factoring x2 + bx + c, a not equal to 1 |
| **Week 03:** | 5.4. Factoring Squares of Binomials  5.5. A General Factoring Strategy  5.6. Solving Quadratic Equations by Factoring |
| **Week 04:** | 5.7 Applications of Quadratics  *Test 1* |
| **Week 05:** | **Chapter 6 Rational Expressions**  6.1. Building and Reducing Rational Expressions  6.2. Multiplication and Division of Rational Expressions |
| **Week 06:** | 6.3. Addition and Subtraction of Rational Expressions  6.4. Complex Fractions |
| **Week 07:** | 6.5. Solving Equations Containing Rational Expressions  6.6. Ratio, Proportion, and Applications  *Test 2* |
| **Week 08:**  **Midterm** | **Mid-term Week**  **Chapter 7 Solving Systems of Linear Equations and Inequalities**  7.1. Solving Systems of Equations by Graphing |
| **Week 09:** | 7.2. Solving System of Equations by Substitution  7.3. Solving System of Equations by Elimination |
| **Week 10:** | 7.4. Coin, General, Motion, and Investment Problems |
| **Week 11:** | 7.5. System of Linear Inequalities  *Test 3* |
| **Week 12:** | **Chapter 8 Roots and Radicals**  8.1. Finding Roots  8.2. Multiplication and Division of Radicals |
| **Week 13:** | 8.3. Addition and Subtraction of Radicals  8.4. Simplifying Radicals |
| **Week 14:** | 8.5. Applications: Solving Radical Equation  *Test 4* |
| **Week 15:** | Final Exam |

#### **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.

<http://www.lincoln.edu/registrar/2014Catalog.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 student with a documented disability should contact the Office of Student Support Services.

<http://www.lincoln.edu/studentservices/index.html>

**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 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.

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**POLICY ON ELECTRONIC DEVICES IN CLASSROOM:**

**Disorderly Conduct**

Behavior that disrupts the academic pursuits, substantially injures the academic reputation, or infringes upon the privacy, rights, or privileges of other persons is prohibited.

**Respectful Conduct**

* It is expected of all students to show respect, fairness and consideration.
* Arrive for class on time. Late class arrivals are disruptive and inconsiderate. Students who frequently arrive late may be asked not to return to class.
* Stay for the entire class. If you must leave early (for a valid reason), do so without causing a disruption. Sit near the exit and inform the instructor in advance if you must leave.
* Set on silent/vibrate mode: **cell phones**, pagers, iPods or other electronic devices not required for class. Use of cell phones, texting or checking messages is prohibited. The penalty of **5 points** will be applied from the score of your next test and you will receive **0 point** if you access these devices during the exams. This rule will apply every time this happens.

**Note:** The instructor of a given section of the course may make some modifications to the evaluation as well as to the rest of the syllabus including but not limited to: the grade weights, number of tests, and test total points.