Course Description
Math 101 is a first-level course in the fulfillment of the mathematics requirement for graduation at the University of Kansas. Success in College Algebra fulfills one unit of the Critical Thinking & Quantitative Literacy General Education Goal for the KU Core and prepares students for subsequent work in a second-level mathematics course (i.e. calculus sequence or statistics). The course is designed to reinforce basic skills and deepen conceptual understanding of the algebraic principles fundamental to mathematical reasoning.

Instructional Approach
The course will focus on the study of functions through multiple representations - verbal, graphic, symbolic, and numeric. Using the basic function families: linear, absolute value, polynomial (square, square root, cube, cube root, higher degree), rational, exponential, and logarithmic, we will analyze relationships among the representations. Additional topics studied include linear systems of equations and matrices. Students will make connections between the graphs of functions, their associated equations and inequalities, and related applications.

Regular class discussions will build on class preparation assignments that students will complete prior to class meetings. Students will submit homework in both and in-class and on-line environment. Daily class participation and "doing math every day" are key to success in the course. Take advantage of the extra resources offered by the Kansas Algebra Program via the drop-in help room, study groups, and opportunities to meet individually with your class discussion leader or the Program Directors.

Course Objectives/Topics
There are five units in the course. Each unit includes applications and data analysis using calculator regression procedures.

1. Solving Equations & Inequalities
   (a) Analytical and graphical solutions to linear, literal, quadratic, absolute value, radical, rational, factorable polynomial, and quadratic-in-form equations.
   (b) Analytical and graphical solutions to linear, quadratic, and absolute value inequalities.

2. Functions and Graphs
   (a) Analyzing basic functions & their characteristics: domain/range, symmetry, increasing/decreasing/constant intervals, and intercepts
   (b) Making new functions from known functions by transformations, piecewise-defined, and arithmetic combinations.
(c) Compositions & Inverses

3. Analysis of Quadratic, Cubic, and Higher Degree Polynomial Functions:
   (a) Analysis of quadratic and higher degree polynomial functions and their graphs.
   (b) Analytical methods for finding roots of higher degree polynomials including the Intermediate Value, Remainder, Factor, and Rational Zeros Theorems, and the Fundamental Theorem of Algebra.

4. Rational, Exponential, & Logarithmic Functions
   (a) Graphs of rational functions
   (b) Exponential and logarithmic functions, equations and graphs.
   (c) Applications of exponential growth and decay.

5. Systems of Equations & Matrices
   (a) Linear systems in two and three variables
   (b) Matrix row-operation solutions to systems

Enrollment

- The prerequisite for the course is two years of algebra and a score of 22 or higher on the mathematics portion of the ACT exam (540 on the SAT).
- Successful completion of Math 002 or its equivalent is also acceptable.
- The Math Department strictly enforces course prerequisites. If you do not meet the prerequisites, you will be disenrolled from the course.
- If you question your placement in this or any mathematics course, you may take the Placement Exam. Refer to the Mathematics Department website at www.math.ku.edu/placement for details.

Add/Change/Drop Information

- Enrollment into Math 101 will be strictly enforced for students who fall under the CLAS Early and Continuous Enrollment in English and Math policy.
- Any add or change of sections after the on-line period allowed by the university must be approved by the KAP office, Strong 323.
- The Kansas Algebra Program adheres to the university-wide drop policy. See the KU Registrar’s site for deadlines. Students who consider dropping the course during the second withdrawal period are encouraged to discuss their academic performance with one of the KAP Directors or the Advising Specialist before taking action.

Course & Classroom Policies

- Successful students attend and participate regularly. Attendance will be taken in class and will contribute to the in-class grade for the semester.
- A graphing calculator should be brought to class every day and it will be required for homework, quizzes, and exams. When taking exams or quizzes, only one graphing calculator will be allowed. The instructors will be using the TI-83 or TI-84 series calculators in the classroom. If you have a different graphing calculator, you are responsible for knowing how to use it.
- Any use of texts, notes, lists of information concealed in calculators, etc. as an aid in writing quizzes or exams is specifically prohibited in this course.
- Cell phones and any equipment using earphones are prohibited in the testing room.
Required Materials

- **Graphing Calculator**: TI-83 or TI-84 series.
- **Text**: The course utilizes the MyMathLab (MML) online homework system which requires the purchase of the MyLabsPlus Access Code. Class discussions and in-class submitted homework will require regular access to the text as well.

1. **Text/access code package**:  
   
   This option is for students who prefer to have a hardbound copy of the text or may not have consistent access to the internet.

2. Alternative to purchased text: The online materials include an e-text. Students who are comfortable with online access only, and have reliable internet resources, may purchase the *MyLabsPlus* code by itself when logging in to the site through the My KAP Info link. A credit card or Paypal account is required.

MyKAPInfo. Course documents are accessed via Blackboard where students will also find the MyKAPInfo navigation item. Use the MyKAPInfo link to find:

- Contact information for the section leader (TA)
- MyMathLab access for online assignments
- Gradebook information (check your progress)
- Sign-up for the Final Exam (available during the 3rd drop period)

Evaluation & Grading Scale

- There are 5 Units in the course. Each of Units 1-4 will include a unit exam and the Unit 5 material will be included in the comprehensive final exam. Homework and classwork are distributed across each of the 5 units.
- Students are expected to complete all assignments and exams.
- Grades may be adjusted upward; they will never be adjusted downward.

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<thead>
<tr>
<th>Requirements</th>
<th>In Class</th>
<th>100 pts</th>
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<tbody>
<tr>
<td>Homework/Quizzes</td>
<td>Online</td>
<td>145 pts</td>
</tr>
<tr>
<td>Classwork</td>
<td>50 pts</td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
<td>25 pts</td>
<td></td>
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<tr>
<td>Exams</td>
<td>400 pts</td>
<td></td>
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<tr>
<td>Final Exam</td>
<td>120 pts</td>
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<tr>
<td>Total:</td>
<td>840 pts</td>
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- The grading scale for the course will be:

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<tr>
<th>Grading Scale</th>
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<tbody>
<tr>
<td>800 - 720</td>
<td>A 90%</td>
</tr>
<tr>
<td>719 - 640</td>
<td>B 80%</td>
</tr>
<tr>
<td>639 - 560</td>
<td>C 70%</td>
</tr>
<tr>
<td>559 - 480</td>
<td>D 60%</td>
</tr>
<tr>
<td>479 - 0</td>
<td>F &lt;60%</td>
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Exams

• You will take four (4) unit exams outside of the scheduled class meeting time. Exams are given in the KAP Testing Center — Strong 324. The testing room is open from 7:30am - 9:00 pm on MTWR. On Friday, the testing room closes at 5:30 pm. You will need to arrange a convenient time for your schedule to fit the required day. Classes will continue to meet on testing days.
• Testing is over a two-day period. Students are assigned a testing day based on the last digit of the KUID. Your KUID is the 7-digit number on your KUID card. Example: 2731679

<table>
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<tr>
<th>Group A - KUID ends in 0-4 → Day 1</th>
<th>Group B - KUID ends in 5-9 → Day 2</th>
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• Arrangements can be made for legitimate conflicts with the Group Assignment. Please visit the KAP office to discuss the individual situation.
• Students who take the exam one day past their Group Assignment (see above) will receive a 10% penalty on the exam score.
• For illness or other documentable absences on the testing days, make arrangements through the KAP office before the exam when possible.

Exam Retakes. Every student will have the opportunity to retake two of the exams. The unit exam score will then be adjusted to the higher of the original or the retake exam.

There is not a specific exam day assignment for the Retakes. However, the testing room space may be limited if students delay to the end of the retake period. When the testing room is full, students will be asked to return at a later time.

• Retake for Exam 1 or Exam 2: March 13-14
• Retake for Exam 3 or Exam 4: May 5-6

Final Exam The comprehensive Final Exam for the course will be given the week of May 12-16 in accordance with the University Calendar. There will be several additional opportunities to take the exam on Monday/Tuesday/Wednesday of Finals Week and students will register for a specific time/location. Details will be provided in class.
Coursework  The homework grade for the course will include both in class and online assignments. See the Unit Calendar for your section for the due dates.

In-Class.  Daily attendance is expected in this course. Additional in-class requirements are:

- Advance Class Preparation: readings and/or viewing video explanations for topics to be discussed in class.
- Class Discussion and collaborative work.
- Written homework assignments to be submitted in the class meetings. These assignments are found in the Unit materials.

Online homework:

- MyMathLab (MML) online assignments and quizzes are completed through the MyLabsPlus (MLP) learning management system. Due dates are noted in the Course Calendar.

MML Guidelines

Online Registration/Access: The purchase of a special access code is required to complete the online homework portion of the course. Refer to the Required Materials section for information on obtaining the code. All access to the MML online homework will be linked through the My KAP Info link in Blackboard.

- If you were registered for MML for this course at KU in Fall 2013 you will not need to purchase anything. When you login through My KAP Info you will be connected to the site directly.
- New students: You may purchase the online access code in one of the following ways:
  - Purchase the text/code package through the KU Bookstore. (See the Required Materials section of this syllabus.)
  - Purchase the code alone using a personal credit card or PayPal account through the MML site when you login through My KAP Info. If financial restraints prohibit you from paying for this the first few days of the semester, you can get a 17-day temporary access when you first login to MML. Upon expiration of the temporary access, you will be required to make the purchase.

Online Homework: Take advantage of the learning aids available to assist you as you work through the exercises. You will have 3 chances before a problem is counted as incorrect. When you select 'similar problem’, you get another opportunity. Here are some things to keep in mind as you work through the online homework.

- All MML homework assignments have a specified due date. Don’t wait until that date to start on the assignment!
- You can re-work exercises, enter and exit your homework, and get back to it at a later time prior to the due date. Be sure to hit SAVE each time you exit.
- If you rely on the MML learning aids to get an exercise correct, then use the Similar Exercise feature to rework the exercise repeatedly until you can get it correct without any help. Many students who become overly dependent on the learning aids or other assistance to get a score of 100% on the assignments find they score much lower on the exams where no learning aids are available.
- There is a 50% late penalty assessed for any exercises submitted past the due date.
- If you need more practice, go to the Study Plan to access additional problems.
Online Quizzes: There will be two (2) online quizzes in each Unit. These quizzes will have due dates on non-testing weeks.

- You can submit up to 10 attempts for each quiz. Each time you access a quiz, you will get a different set of questions. The recorded score will be the best of all attempts.
- Quizzes do not have a late option. You must answer the questions in order, and cannot go back to previously viewed questions.

| Quiz Scores count only if you hit the SUBMIT button!! |

Best Practices

1. MML Homework assignments do not have to be done in one setting. In fact, it is good practice to take breaks and complete an assignment over several sessions.

2. Do not wait until the Due Date to start an assignment. All MML assignments will be due after the material is discussed in class so that will give you time to make certain you are getting full credit. Or, you are welcome to work ahead!

3. Always finish a homework session by hitting "SAVE". Neglecting to do this may lose some data point transfer.

4. Quizzes are to be completed in ONE session, however. You must hit "SUBMIT" for the quiz score to count.

Program Resources

Help Room & Computer Lab

- A drop-in help room for Math 002 and Math 101 is located in Strong 323. You are urged to make use of the free service whenever you have questions outside of class and to prepare for exams.
- Formal Study Groups led by a member of the KAP tutoring staff will be available. Contact the KAP Office (ST 323) for information.
- Students are welcome to form informal study groups for Math 101 and use the KAP Help Room facilities.
- The Math Computer Lab is available for students to use for the MML assignments.

Special Needs

- The staff of Disability Resources (AAAC-DR) in Strong 22, 785-864-2620 (v/tty), coordinates accommodations and services for KU courses. If you have a disability for which you may request accommodation in KU classes and have not contacted them, please do so as soon as possible.
- Classroom or testing accommodations for Math 101 should then be arranged through the KAP office in ST 323.
Academic Misconduct

- University Senate Rules and Regulations, Section 6, Academic Misconduct:
  '2.6.1 Academic misconduct by a student shall include, but not be limited to, disruption of classes; threatening an instructor or fellow student in an academic setting; giving or receiving of unauthorized aid on examinations or in the preparation of notebooks, themes, reports or other assignments; knowingly misrepresenting the source of any academic work; unauthorized changing of grades; unauthorized use of University approvals or forging of signatures; falsification of research results; plagiarizing of another’s work; violation of regulations or ethical codes for the treatment of human and animal subjects; or otherwise acting dishonestly in research.'

Intellectual Property

- Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor.
- Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited.
- Permission to make such recordings may be granted by the instructor on a case by case basis, on the condition that these recordings are used only as a study aid by the individual making the recording.
- Unless explicit permission is obtained from the instructor, recordings of lectures and review sessions may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course.