College Algebra

Kellogg Community College, Battle Creek, Michigan, www.kellogg.edu

Course Number:	MATH 125-90
Credits:	4 credit hours
Semester:	Summer 2019
Start and End Dates:	05/13/2019-07/23/2019 **Drop Date:** 05/19/19 **Withdraw Date:** 07/23/19
Meeting Times/Dates:	Online course
Location of Course:	Online course
Instructor:	Anna Cox
KCC Staff Email Address:	coxa@kellogg.edu
Instructor Phone Number:	269-660-2333
Instructor Office & Mailbox Location:	Classroom Building 401X
Course Description:	Topics included are subsets of the number system, relations and functions, linear systems of equations, polynomials, rational expressions and equations, exponents and radicals, complex numbers, polynomial equations, exponential and logarithmic functions and equations, applications, conic sections, matrices, binomial expansion, and families of functions of graphs.
Prerequisites:	ACCUPLACER college algebra score of at least 65, or ACCUPLACER elementary algebra score of at least 85, or 1 course from MATH-105 MATH-111 MATH-112, MATH-115, MATH-118, MATH-119, MATH-125, MATH-130, MATH-132, MATH-140, MATH-141, MATH-142, MATH-241, or MATH-242 with at least a grade of C.
Textbook(s):	Online - "Journey Through College Algebra" by Aufmann.
Learner Supplies:	**TI-83 or TI-84 model Calculator** NOTE: CAS nspire, HP, Infared/Wireless devices NOT permitted. Calculators banned on the ACT/SAT are not allowed in class. Calculators with A-Z keyboards are not allowed for tests. Phones, smartwatches, tablets, computers and similar will not be permitted. No programs or apps in the calculator can be used to bypass math processes.
General Education:	This course is considered a General Education course. For more information, please see the Kellogg Community College catalog under 'Instructional Information – General Education.'

Course Competencies:

I.   Factoring Polynomials
   a. Common factors
   b. Factoring by grouping
   c. Trinomial factoring
   d. Binomial factoring
   e. Special factoring patterns
   f. Solving equations using factoring

II.   Rational Expressions
   a. Multiply, divide, add and subtract rational expressions
   b. Simplify complex fractions
   c. Solving equations with rational expressions
   d. Applications with direct and indirect variation

III.   Rational Exponents and Radicals
   a. Add, subtract, multiply and divide radical expressions
   b. Solving equations with radical expressions
   c. Simplify rational exponents and radical expressions

IV.   Quadratic Equations
   a. Solve equations by taking the Square Root
   b. Solve equations by completing the square
   c. Solve equations by using the quadratic formula
   d. Applications using quadratics
   e. Complex numbers
   f. Reducing equations to quadratics

V.   Further Quadratic Work
   a. Properties of quadratic functions
   b. Applications of quadratic functions
   c. Algebra of functions
   d. Functions, one-to-one and inverse functions

VI.   Exponential and Logarithmic Functions
   a. Exponential functions and graphs
   b. Definition of a logarithm
   c. Properties of logarithms
   d. Common logarithms, natural logarithms
   e. Using the calculator to find logs and anti-logs
   f. Exponential and logarithmic equations
   g. Applications

VII.   Conic Sections
   a. Properties and graphing parabolas
   b. Properties of circles
   c. Properties and graphing ellipses and hyperbolas
   d. Solving nonlinear systems of equations

VIII. Sequences, Series and the Binomial Theorem
   a. Basics of sequences and series

  b. Arithmetic sequences and series
  c. Geometric sequences and series
  d. Binomial Expansions

IX. Families of Functions
  a. Functions, inverses, domain and range
  b. Linear functions
  c. Transformations of graphs
  d. Compositions of functions
  e. Modeling data using regression
X. Matricies
  a. Row-echelon form
  b. Adding, subtracting, scalar multiplication of matrices
  c. Matrix multiplication
  d. Solving equations using inverses of matrices
  e. Determinants (if time)
  f. Two and three dimensional applications (if time)

Mode of Instruction: This course will incorporate a variety of learning experiences including on-line homework, written homework, practice tests, quizzes, proctored tests and a final. Online lectures and videos will be used to support this course.

Grading Information: Students will earn points for successful completion of:
1. Tests: @ 50-100 points
2. Daily Work (homework, quizzes, projects): @ 2-50 points
3. Comprehensive Final Exam: @ 150 points
4. Participation: @ 50 points

Grading Chart:
A 92% to 100%
A- 90% to 91%
B+ 88% to 89%
B 82% to 87%
B- 80% to 81%
C+ 78% to 79%
C 72% to 77%
C- 70% to 71%
D+ 68% to 69%
D 62% to 67%
D- 60% to 61%

Assignments:
GRADE COMPOSITION: The following grade composition is subject to change
CHAPTER 11 HOMEWORK/QUIZZES: 4 points (Factoring Review)
CHAPTER 12 HOMEWORK/QUIZZES: 19 points (Rationals Homework)
CHAPTER 12 TEST: 100 points (Rationals Test)

CHAPTER 13 HOMEWORK/QUIZZES: 13 points (Radicals Homework)
CHAPTER 13 TEST: 100 points (Radicals Test)

CHAPTER 14 HOMEWORK/QUIZZES: 13 points (Quadratics Homework)

CHAPTER 14 TEST: 100 points (Quadratics Test)

CHAPTERS 15/16 HOMEWORK/QUIZZES: 19 points (Exponentials Homework)
CHAPTERS 15/16 TEST: 100 points (Exponentials Test)

CHAPTERS 15/17 HOMEWORK/QUIZZES: 19 points (Conics Homework)
CHAPTERS 15/17 17 TEST: 100 points (Conics Test)

CHAPTER 18 HOMEWORK/QUIZZES: 13 points (Sequences & Series Homework)
CHAPTER 18 TEST: 100 points (Sequences & Series Test)

CHAPTER 2 HOMEWORK/QUIZZES: 19 points (Families of Functions Homework)
CHAPTER 2 TEST: 100 points (Families of Functions Test)

CHAPTER 7 HOMEWORK/QUIZZES: 9 points (Matrices Homework)
FINAL EXAM: 150 points (Comprehensive Final Exam)
PARTICIPATION: 50 points

COURSE TOTAL: 1028 points

TESTS: There will be regular 60 minute CHAPTER tests and a comprehensive final exam. Each will be recorded based on percentage correct (0 – 100%). All test dates will be scheduled in advance but may be changed at any time. You are responsible to bring your own pencil/pen and calculator. All electronic devises except calculators must be turned off and put away.

Exam: Each student will complete an objective comprehensive exam. Note: make ups are allowed only for students who receive prior approval to test date from me.

Testing Centers (for proctored testing) **-** Kellogg Community College testing sites include:

      KCC Main Campus: 965-3931 ext. 2296
      Eastern Academic Center (Albion): (517) 630-8169
      Fehsenfeld Center (Hastings): 948-9500
      Grahl Center (Coldwater): (517) 278-3300

Grade Determination:

Assignments:	Points Possible:
Homework/Quizzes	128
Tests	700
Final	150
Participation	50
Total Points	**1028**

Make-up Work and Late Assignments: Pay careful attention to due dates, they are rarely extended. See the schedule for actual due dates.

Tutoring: Specialized help is available in English, Math, Reading, Science, and Learning Strategies. If you need additional help, you may request a tutor at "The Bridge" or submit a request online at: http://www.kellogg.edu/studentservices/tutoring/. You can reach The Bridge by calling (269) 965-3931 ext. 2296; they can give you their current schedule for math tutoring.

Technical issues with website: Please call Cengage Publishing if you have technical issues with the website https://webassign.com/. Their phone for student issues is: 800.955.8275

Attendance:
1. Regular attendance is an essential part of the educational experience and a requirement for an adequate evaluation of each student's academic progress. Excessive absence is reported to the Academic Advising department. An Advisor will reach out to students to discuss options for success. Continued absenteeism may lead to administration action. Faculty are required to report to the Financial Aid office students who have never attended class. Federal aid may be reduced if a student does not begin attendance in all classes. This includes online courses. For more information, please visit: http://www.kellogg.edu/wp-content/uploads/2016/08/Handbook-2016-2017.pdf

2. **Drop/Add Procedures:** Drop/Add procedural information may be found at: http://www.kellogg.edu/catalog. The drop/add dates for every course may be found on the KCC web site at: www.kellogg.edu follow the schedule link.

Incomplete Grade and Additional Grading Policies: For information regarding additional grading policies, please visit the KCC catalog at: http://www.kellogg.edu/catalog

Disability Services: While ensuring the academic integrity of its programs, Kellogg Community College is dedicated to providing the reasonable accommodations needed to ensure equal access to educational opportunities for individuals with verified disabilities. Disability services are provided to students who self-disclose a disability to the Support Services Department and provide appropriate documentation. Support Services may be reached at 269.965.4150 or supportservices@kellogg.edu.

Academic Integrity Policies: Ethical conduct is the obligation of every member of the KCC community. Breaches of Academic integrity constitute serious breaches of ethical conduct. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. This policy demonstrates KCC's concern for academic integrity and guarantees a fair procedure for handling these concerns. Examples of unethical conduct include: cheating, fabrication, and plagiarism. For more information regarding KCC's Student Code of Conduct, please visit: **http://www.kellogg.edu/wp-content/uploads/2016/08/Handbook-2016-2017.pdf.**

Code of Conduct: Kellogg Community College students are expected to model the skills and behaviors of working professionals. This includes exhibiting behaviors which support respect and courtesy in the class environment. For more information regarding KCC's Student Code of Conduct, please visit: **http://www.kellogg.edu/wp-content/uploads/2016/08/Handbook-2016-2017.pdf**.

Safe and Successful Campus Environment: KCC is dedicated to providing a safe environment which is conducive to success for all students. When staff notice that a student is struggling emotionally, intellectually, or behaviorally with classroom expectations, they may notify the appropriate personnel on campus to intervene and provide assistance to that student. Academic assistance is available in The Bridge and through Academic Advising; personal counseling is also available in Support Services.

Students whose behavior suggests they are struggling may also be contacted by the KCC Director of Student Relations or by KCC Public Safety. If students have safety concerns about others' behavior in class or on campus, those students are encouraged to discuss their concerns with KCC Public Safety directly.

Academic Support Services: Kellogg Community College is committed to your academic success. If for any reason a student is struggling with a class, speak to the Professor immediately. They are the best resource.

Additional resources available include The Bridge (http://www.kellogg.edu/services/the-bridge/) and Support Services (http://www.kellogg.edu/services/student-support-services/).

Honors Contract Information: Honors contracts are a way for students to turn any college-level KCC course into an honors course, giving them the flexibility to take ownership over learning. At the beginning of the semester, with instructor approval, a student may work with the instructor to develop a unique honors project beyond the course syllabus. Once the honors project is clearly defined and the student's project has been approved by the instructor, the student works independently on that project during the semester and may seek support from the instructor as needed; then, at the end of the semester, when the student successfully completes the honors project as outlined in the contract **and** earns at least a B+ in the course, the student will earn honors designation on their transcript. To download the honors contract and learn more about the Honors Program, please visit http://www.kellogg.edu/academics/honors-program/.

Retain this Syllabus & Syllabus Disclaimer: This syllabus is a record of learning outcomes associated with this course. Many institutions will require a copy of this syllabus to grant transfer credit. It is the student's responsibility to retain a copy for future use.

Information contained in this syllabus was, to the best knowledge of the instructor, considered correct and complete when distributed for use at the beginning of the semester. However, this syllabus should not be considered a contract between Kellogg Community College and any student, nor between the instructor and any student. The instructor reserves the right, acting within the policies and procedures of Kellogg Community College, to make changes in course content or instructional techniques without notice or obligation.

Use of Technology & Student Email Accounts*:* The College has a variety of computer systems which are provided for the use of students and are to be used for education, research, academic development, and public service only. You are responsible for seeing that the computing facilities are used in an effective, efficient, ethical, and lawful manner. Computer systems, such as e-mail, are intended for college related activities only. Inappropriate messages and/or materials are not to be sent or stored. For more information, visit the KCC web page at: www.kellogg.edu.

Textbook Statement: There are multiple choices for purchasing textbooks, including the Kellogg Community College bookstore (www.kellogg.edu - follow the on campus link to the bookstore). Please be advised that each student should fully investigate the refund policies of book retail stores, including the Kellogg Community College bookstore, PRIOR to purchasing a book for any course. When purchasing a book from the Kellogg Community College bookstore, students are encouraged not to break a textbook's binding, or open a book in shrink-wrap covering, prior to attending the first course session in order to verify that a correct book has been purchased. Students are advised to keep all receipts from book purchases.

Service Learning Option: Incoming students enrolled in general education degree programs will be required to complete a service learning experience to qualify for graduation. All other students are encourage to participate in a service learning experience. Service Learning information may be found at: http://www.kellogg.edu/academics/service-learning/

See the instructor if you are interested in pursuing this option. Detailed instructions will be provided later, but you should know you will need to:
* Provide your own transportation to and from the placement site.
* Perform a minimum of 15 hours of service.
* Complete your hours by due date.
* Complete reflection activity(s).
* Successfully complete both the course and the service.

Once the course and service are completed satisfactorily, the instructor will notify the Registrar's office and it will be indicated on your transcript.