

Kent State University - Stark Campus
MODELING ALGEBRA - 15743 - MATH 11009 - 601

MW10-11:40

Fall 2014

MH 219

Instructor: Dr. Janice Kover

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Office Hours: Mondays: 2-4:30pm (Virtual & Stark Campus), Tuesdays: 9:30-Noon (Virtual Only), Wednesdays: 8-10 am (Virtual & Stark Campus)

Other Virtual Hours (or on campus if requested) can be made by appointment. To make an appointment, please email me with a few specific dates and times that you are available to meet and I will try to work my schedule to meet with you. To meet during these hours please go to the Virtual Meeting Room.

Text : Harshbarger & Yocco, College Algebra in Context, Fourth Edition, (ISBN: 9780321756268) **Please note the book is optional and will only be used as an additional resource.

Required: At least a scientific calculator. Graphing calculators are strongly encouraged. Please try to borrow from a friend for the semester. TI-83 will be used in lectures.

Course Description: Study of algebra arising in the context of real-world applications, including linear, polynomial, exponential and logarithmic models. This course is intended for students not planning to take calculus. See page two for detailed learning outcomes given by the math department.

Course Policies:

1. Course grades are determined by:

8% - Modeling Projects (2 projects 4% each)

12% - May include Turn-In Assignments, Surveys or Q&A Forums, or Modeling Projects

80% - Tests (4 non-comprehensive exams 20% each)

Grading Scale: 90%-100% A; 80%-89% B; 70%-79% C; 60%-69% D; 0%-59% F (plus and minus grades will be assigned only in close cases)

2. Please turn in all assignments on their due dates. If there are extenuating circumstances email the professor immediately attaching the appropriately scanned documentation.

3. Homework may be collected at any time. That is, you may be asked to scan your homework and turn it in.

4. Make-up exams will only be given in extenuating circumstances and must have professional documentation for approval.

5. While there is no monitoring of how you conduct your weekly work it is assumed that you will give your full attention to your work when you view the videos, work on assignments or visit virtual office hours. Keep in mind you must answer the questions in the Video Lessons in Moodle.

6. Appropriate language is expected both written and verbal during virtual hours. (This includes abbreviations.)

7. Please keep in mind that while I will do the best to be present at every office hour (both live and virtual) but there are times when events (including technical issues) stop this from occurring. I will do my best to email the class and let them know when there are such occasions. Stark Tutoring hours and office hours will not be held if the Stark Campus has classes canceled during the scheduled session.

8. The final exam is required. It will be given on December 10th at 10:30am. Failure to show for the final exam may result in an F for the course.

9. Pop quizzes may be given at any time.

Academic Honesty: Use of the intellectual property of others without attributing it to them is considered a serious academic offense. Cheating or plagiarism will result in a failing grade for the work or for the entire course. Repeat offenses result in dismissal from the University. University guidelines require that all infractions be reported to the Student Conduct Officer on our campus.

Students with Disabilities: University policy 3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-244-5047 or visit <http://stark.kent.edu/student/resources/accessibility.cfm> for more information on registration procedures).

Classes Canceled ? Campus Closings: Announcements of class cancellations and/or campus closings will be made on the campus home page. In the case of an emergency, weather-related or otherwise, please check the web page at stark.kent.edu for information on the buildings and times of the closing. While information may be broadcast by radio and television, this should be confirmed by the web page, which is the official announcement of the campus and which will be the information used to determine issues related to student attendance, rescheduling of tests, and other concerns.

Withdrawal: If you are considering withdrawing from this course, please consult with a staff member in the Office of Student Services of your local campus. Withdrawal from a course can affect financial aid, student status, or progress within your major. For withdrawal deadlines, please refer to http://www.registrars.kent.edu/home/TermUpdate/sche_adj.htm.

Learning Outcomes for Modeling Algebra, Math 11009 11009 Modeling Algebra (4)

Knowledge

Master algebraic techniques and manipulations necessary for problem solving and modeling in this course.

Comprehension

With the aid of a spreadsheet, graphing calculator, or similar technology, students can construct a model that captures essential features of a situation described by discrete data. Compare and contrast characteristics (numeric, graphical, symbolic) of functions studied in the course: linear, quadratic, exponential, logarithmic, polynomial.

Application

Student can use a function model to analyze and interpret a situation described verbally or with data.

Analysis

Analyze a given set of real-world discrete data numerically and graphically and determine which of the elementary functions would be an appropriate mathematical model.

Synthesis

Describe the role and usefulness of mathematical modeling in the decision making process of social and life scientists, business personnel and government agencies. Develop a personal framework of problem-solving techniques. Analyze the relevance of mathematical modeling to their field of study and give at least one concrete example.

Evaluation

Critique the appropriateness of the mathematical model chosen by their peers during in-class presentations. Evaluate group dynamics within their group.

Class Activities

Small group problem-solving, group presentations, activities with motion sensor, mini-lectures, group and individual quizzes, individual exams (Class Activities have been modified for an online course.)

Out of class Activities

Reading the textbook and watching videos, online homework assignments, lab write-ups, small group projects