SYLLABUS

DATE OF LAST REVIEW: 02/2013

CIP CODE: 24.0101

SEMESTER: Departmental Syllabus

COURSE TITLE: Graphing Calculator I

COURSE NUMBER: MATH0107

CREDIT HOUR: 1

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: Departmental Syllabus

EMAIL: Departmental Syllabus

KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREQUISITE(S): Grade of “C” or higher in Math0099 Elementary Algebra.

REQUIRED TEXT & MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com/, for the required text(s) and other required material for your particular class. The TI-83 or 84 Series graphing calculator is required.

COURSE DESCRIPTION: Graphing Calculator I is designed for students with limited or no background in the use of the TI-83 or 84 Plus graphing calculator. The purpose of this course is to provide basic instruction in the use of the graphing calculator that is required in MATH-0105 College Algebra and above.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
I. Basic Keyboarding Skills
   A. Key uses
   B. Order of Operations
II. Graphing and Analyzing Families of Functions
   A. Using window and zoom keys
   B. Graphing families of functions
      1. Linear
      2. Quadratic
      3. Cubic
      4. Piecewise
      5. Absolute value
   C. Systems of equations
   D. Developing tables
   E. Analyzing properties
      1. Roots (the zeros of quadratic functions)
      2. Maximums
      3. Minimums

III. Collecting & Analyzing Data
   A. Single variable data
      1. Mean
      2. Median
      3. Mode
   B. Simple regression problems using Statplots

EXPECTED LEARNER OUTCOMES:
   A. The student will be able to demonstrate basic keyboarding skills.
   B. The student will be able to graph and analyze families of functions.
   C. The student will be able to collect and analyze data.

COURSE COMPETENCIES:
Upon successful completion of this course:

   The student will be able to demonstrate basic keyboarding skills using the TI-83 Plus
   graphing calculator.
   1. The student will be able to identify uses for keys on the graphing calculator including
      screen contrast and absolute values.
   2. The student will be able to do basic signed number skills using the correct order of
      operations.

   The student will be able to graph and analyze families of functions on the TI-83 Plus
   calculator.

   3. The student will be able to use the window and zoom keys to view a variety of
      graphs.
   4. The student will be able to graph families of functions including linear, quadratic, 
      cubic, piecewise, and absolute value.
   5. The student will be able to solve systems of equations using the intersect feature.
   6. The student will be able to develop tables related to the graphing of various functions.
The student will be able to analyze properties of various functions including roots (zeros of quadratic functions), maximums, and minimums.

The student will be able to collect and analyze data using the TI-83 Plus graphing calculator.

8. The student will be able to collect the single variable data of mean, median, and mode.

9. The student will be able to collect and enter data for simple regression problems using the LIST feature then graph a Statplot.

ASSESSMENT OF LEARNER OUTCOMES
Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:
Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

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