College Algebra KRSN MAT1010 – College Algebra

| INSTITUTION | COURSE ID | COURSE TITLE | CREDIT HOURS |
|---------------------------|------------------------|---|--------------|
| Allen County CC | MAT 105 | College Algebra | 3 |
| Barton County CC | MATH 1828 or MATH 1826 | College Algebra or Int. and College Algebra | 3, 5 |
| Butler CC | MA 135 | College Algebra | 3 |
| Cloud County CC | MA 111 | College Algebra | 3 |
| Coffeyville CC | MATH 105 | College Algebra | 3 |
| Colby CC | MA 178 | College Algebra | 3 |
| Cowley County CC | MTH 4420 | College Algebra | 3 |
| Dodge City CC | MATH 106 | College Algebra | 3 |
| Emporia State U | MA 110 | College Algebra | 3 |
| Flint Hills Tech Col | MA 110 | College Algebra | 3 |
| Ft. Hays State U | MATH-110 | College Algebra | 3 |
| Ft. Scott CC | MAT 1083 | College Algebra | 3 |
| Garden City CC | MATH-108 | College Algebra | 3 |
| Highland CC | MAT 104 | College Algebra | 3 |
| Hutchinson CC | MA 106 | College Algebra | 3 |
| Independence CC | MAT 1023 or MAT 1025 | College Algebra | 3, 5 |
| Johnson County CC | MATH 171 | College Algebra | 3 |
| Kansas City Kansas CC | MATH0105 | College Algebra | 3 |
| Kansas State U | MATH 100 | College Algebra | 3 |
| Labette CC | MATH 115 | College Algebra | 3 |
| Manhattan Area Tech Col | MAT 135 | College Algebra | 3 |
| Neosho County CC | MATH 113 | College Algebra | 3 |
| North Central KS Tech Col | MA-111 | College Algebra | 3 |
| Northwest KS Tech Col | MATH 115 | College Algebra | 3 |
| Pittsburg State U | MATH-113 | College Algebra | 3 |
| Pratt CC | MTH 177 or MTH 178 | College Algebra | 3, 5 |
| Salina Area Tech Col | MAT 150 | College Algebra | 3 |
| Seward County CC | MA 1173 | College Algebra | 3 |
| Univ. of Kansas | MATH 101 | College Algebra | 3 |
| Washburn U | MA 116 | College Algebra | 3 |
| Wichita Area Tech Col | MTH 112 | College Algebra | 3 |
| Wichita State U | MATH 111 | College Algebra | 3 |

College Algebra-MAT1010 CORE OUTCOMES

Upon completion of the above listed course, students will be able to do the following:

Students will be expected to use appropriate technology as one tool to achieve the following outcomes:

Analysis and Graphing of Functions and Equations

- Use functional notation.
- Recognize and distinguish between functions and relations (equations).
- Use concepts of symmetry, intercepts, left- and right-hand behavior, asymptotes, and transformations to sketch the graph of various types of functions (constant, linear, quadratic, absolute value, piecewise-defined, square root, cubic, polynomial, rational, exponential, and logarithmic) or relations (circle) given in description.
- Determine the domain and range of a function.
- Write the equation that describes a function (for types given above) or circle given its description.
- Use graphs of functions for analysis.
- Find arithmetic combinations and composites of functions.
- Find the inverse of a function.

Solutions of Equations and Inequalities

- Solve equations listed in the third bullet above, i.e., literal equations, quadratic equations by factoring and the quadratic formula, equations involving rational expressions, equations involving radicals, and equations involving absolute value expressions, along with equations involving exponential or logarithmic functions.
- Solve inequalities of the following types: linear (in one and two variables), polynomial, rational, absolute value.
- Solve systems of inequalities by graphing.
- Apply equations from the first bullet in this core outcome to real-world situations, including but not limited to depreciation, growth and decay, and max/min problems.
- Examine and analyze data, make predictions/interpretations, and do basic modeling.
- Solve systems of equations by various methods, including matrices.