

INTEGRATED ALGEBRA

FOUR-SEMESTER PLANNING

SEMESTER 4 – ME44

Day	Topic
1	How do we graph an equation of the form $y=ax^2$?
2	How do we graph an equation of the form $y=ax^2 + c$?
3	How do we graph equations of the form $y=ax^2 + bx + c$?
4	Practice graphing quadratic equations
5	How do we graph quadratic inequalities of the form $y \leq ax^2 + bx + c$?
6	Practice graphing quadratic inequalities
7	How do we solve quadratic equation by graphing?
8	How do we solve quadratic equation by using square roots?
9	Practice graphing quadratic equations
10	How do we solve quadratic equation algebraically?
11	How do we solve quadratic equation algebraically?
12	Practice solving quadratic equations
13	How do we solve a linear-quadratic system graphically?
14	How do we solve a linear-quadratic system algebraically?
15	How can we use the discriminant to determine the number of solutions?
16	How can we use the discriminant to determine the number of solutions?
17	How do we simplify radical expressions involving products?
18	How do we simplify radical expressions involving quotients?
19	Practice with radical expressions
20	How do we simplify radical expressions of sums and differences?
21	How do we simplify radical expressions of products and quotients?
22	Practice simplifying radical expressions
23	How can we find the sine, cosine, and tangent ratios of a right triangle and apply them to find missing sides?
24	How can we find the sine, cosine, and tangent ratios of a right triangle and apply them to find missing sides?

25	How do we determine the measure of angles in a right triangle given 2 sides?
26	How do we solve problems using angles of elevation or angles of depression?
27	How do we solve problems using angles of elevation or angles of depression?
28	How do we simplify rational expressions by factoring them and renaming them?
29	How do we simplify rational expressions by factoring them and renaming them?
30	How do we multiply rational expressions and simplify them?
31	How do we divide rational expressions and simplify them?
32	Practice multiplying and dividing rational expressions
33	How do we divide a polynomial by a monomial or a binomial?
34	Practice dividing polynomials
35	How do we add and subtract rational expressions with like denominators?
36	How do we add and subtract rational expressions with unlike denominators?
37	Practice adding and subtracting rational expressions
38	How do we solve equations containing rational expressions?
39	How do we solve proportions?
40	Practice with rational equations and proportions
41	How can we use the multiplication counting principle?
42	How do we find the number of permutations of objects in a set?
43	How can we practice with permutations and the counting principle?
44	How do we find the number of combinations of objects in a set?
45	How do we use permutations and combinations to solve probability problems?
46	Practice with permutations and combinations