

3. convert fixed notation numbers into powers of ten, scientific and engineering notation formats;
4. demonstrate the ability to convert all numbers into metric prefix format;
5. convert complex real number expressions into a simplified form;
6. develop a working skill in algebra, including the combination of real and literal numbers into terms, expressions and equations;
7. solve for literal numbers in algebraic equations using recognized algebraic procedures;
8. convert a given literal number formula or equation in order to solve for different values;
9. develop a working skill in solving problems in right triangle trigonometry;
10. demonstrate proper graphing techniques as applies to industry-recognized procedures.

7. **Course Objectives** (Identify specific teaching objectives detailing course content and activities. *For some courses, the course objectives will be the same as the student learning outcomes. If this is the case, please simply indicate this in this section).*

Same as Student Learning Objectives, above.

8. **Course Content** (Brief but complete topical outline of the course that includes major subject areas [1-2 pages]. Should reflect all course objectives listed above. In addition, you may attach a sample course syllabus with a timeline.)

The course will include the following topics:

1. Basic mathematics operations, including whole numbers, decimals and fractions (objective 1)
 2. Use of rules of signed number arithmetic to perform addition, subtraction, multiplication and division problems (objective 2)
 3. Conversion of fixed numbers into powers of ten, scientific, engineering and metric prefix formats (objective 3, 4)
 4. Conversion of complex real number expressions into their most simplified form (objective 5)
 5. Using the rules of algebra to solve algebraic expressions and equations (objectives 6, 7)
 6. Using algebraic techniques to convert a given formula to solve for a different literal number, embedded in the formula (objective 8)
 7. Develop a working skill in solving right triangle trigonometry problems as applies to electronics calculations (objective 9)
 8. Graphing techniques and procedures as applies to industry-recognized documentation procedures (objective 10)
9. **Representative Instructional Methods** (Describe instructor-initiated teaching strategies that will assist students in meeting course objectives. Include examples of out-of-class assignments, required reading and writing assignments, and methods for teaching critical thinking skills.)

Includes lecture and group discussion relating to the topics being considered. Weekly reading and homework will be assigned.

10. **Representative Methods of Evaluation** (Describe measurement of student progress toward course objectives. Courses with required writing component and/or problem-solving emphasis must reflect critical thinking component. If skills class, then applied skills.)

Evaluation will be based on satisfactory performance on homework activities, section tests and a final exam. The final exam will be used to determine competency to progress to the next level.

11. Representative Text Materials (With few exceptions, texts need to be current. Include publication dates.)

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