

## ABET Course Syllabus for ETSC 265: Three-dimensional Modeling

1. Course number and name: ETSC 265: Three-dimensional Modeling
2. Credits and contact hours: 5 credit hours, 6 hours per week
3. Instructor's Name: Darryl Fuhrman
4. Textbook, title, author, and year:
  - *Beginner's Guide to Solidworks 2019*, Reyes
- a. Other supplemental materials:
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5. Specific course information:
  - a. Brief description of the content of the course (catalog description): Design of parts, assemblies, and working drawings using 3-D solid modeling software, basic theory sketch, boss/cut, standard mates, reference geometry, drawing views, annotation, and geometric dimensioning, and tolerancing (GD&T). Two hours lecture and four hours laboratory per week. Formerly IET 265, students may not receive credit for both.
  - b. Pre-requisites: ETSC 160 or declared electronics engineering technology majors.
  - c. Required, elective, or selected elective (as per Table 5-1) course in the program: Required
6. Specific goals for the course:

The fundamental principles of three-dimensional computer aided drafting are introduced.

  - a. Specific outcomes of instruction:
    - Create parametric models using SolidWorks software at the CSWA level
    - Choose appropriate commands to produce desired parametric model accurately and efficiently
    - Produce basic design documents in layout view under a time constraint
    - Annotate and dimension drawings to industry standards which includes GD & T.
    - Design and produce an additive manufactured part.
  - b. Criterion 3 student outcomes addressed by course:

3 (3)
7. Brief list of topics covered:
  - Part Modeling
  - Drawings
  - Assemblies
  - Prepare for CSWA