

- Course Number and Title: ENGR 110. Introduction to Engineering Design
- Catalog Description: Sketching and orthographic projection. Covers detail and assembly working drawings, dimensioning, tolerance specification, and design project.
- Credit Hours: 3 Credits (2+3P)
- Prerequisite(s) / Corequisite(s): Prerequisite(s): None  
Corequisite(s): None
- Required: Required for BSME and BSAE Degrees
- Course Availability: Fall and Spring Semesters + Summer
- Instructor (Usual): Eduardo Gamillo (See <https://et.nmsu.edu/people/people-directory.html>)
- Textbook: Tran, P., *SolidWorks 2022 Basic Tools: Getting started with Parts, Assemblies and Drawings*, 1<sup>st</sup> Ed., SDC Publications, 2022 (ISBN-10: 1630574643 or ISBN-13: 978-1630574642).
- Course Learning Objectives: After completing this course, a student should be able to:
  - 1) Understand the fundamentals of part modeling and assemblies using modeling techniques in the SolidWorks solid modeling software.
  - 2) Put these parts and assemblies into production drawings using proper geometric dimensioning.
- Topics Covered:
  - Basic Solid Modeling - Extrude Options, Revolve Parts,
  - Rib and Shell Features, Linear, Circular and Curve Driven Pattern,
  - Part Configuration, Modeling Treads, Bottom-Up Assemblies,
  - Introduction to Drawings, Assembly Drawings – Drawing Views – Detailing Views