PRODUCTION MANAGEMENT AND ENGINEERING TECHNOLOGY (PMET)

PMET 130
Product Design and Development
3 Units (AA/AS)
36 lecture hours, 54 lab hours
Grade Mode: Standard Letter
Prerequisite(s): ENGR 130.
Strongly recommended: ENGL 101, BUS 130.
Innovate, design, and prototype new or improved products or processes to fulfill unmet needs of a company or end user. Prototyping systems will be used to refine new or update products, services, and processes. Students will develop plans to implement new or improved products, services or processes to go to market. Emphasis in project management, marketing, lean production and operations. Explore inspection, testing, and evaluation for quality control and management purposes.

PMET 131
Tooling and Machining
3 Units (AA/AS)
36 lecture hours, 54 lab hours
Grade Mode: Standard Letter
Prerequisite(s): PMET 130.
Strongly recommended: ENGL 101, BUS 130.
This course will explore four parts of the tooling and machining process which include an introduction to manufacturing, metal machining, Computer Numerical Control (CNC),and advanced machining technologies. Students will have a good understanding of how to read and interpret Computer Aided Design (CAD) drawings for the purpose of production with CNC mills and may include some hand operated metal machining tools. After students have designed and managed a part for production, he/she will make their designed part out of aluminum in a CNC mill with the proper Mastercam programming and tool set up.

PMET 132
Additive Manufacturing
3 Units (AA/AS)
36 lecture hours, 54 lab hours
Grade Mode: Standard Letter
Prerequisite(s): PMET 131.
Strongly recommended: ENGL 101, BUS 130.
This course explores and practices rapid prototyping principles and applications with the background knowledge of CAD design and production processes. 3D printing and scanning will be covered in depth with industrial grade 3D printers, scanners, and CAD software. Final 3D prints may be used for fitment checks, problem solving and research, or as a final product for the end-user. The concept of lean production and management is encouraged and realized in the area of material usage and waste management.