# **Mechanical Engineering Technical Electives**

<u>Note</u>: The purpose of this document is to provide students with a general idea as to what semesters the technical electives tend to be offered. Please be advised that course offerings are contingent upon departmental resources, so not every course will be offered in the semester in which it is listed. Also, you will notice that

### Microcontrollers

EML 4310

To introduce students to microcontroller technology, and to provide them with an understanding of the concepts and

### Advanced CAD/CAM

EML 4930

The purpose of this course is to understand and be proficient in using the advanced features, capabilities, and practical applications of CAD and CAM, a 3D feature-based solid modeling software, Solidworks. Students will be prepared to work in the design and manufacturing industry by assisting in getting certified with a Professional level of Design (CSWP – Mechanical Design) and Manufacturing (CSWP – CAM). The additional bonus is to get certified at the Associate level Cof Additive Manufad22qM

	Introduction to Flight	
EAS 4020	Introduction to the science and engineering of aircraft. Overview of applied aerodynamics, performance, stability, propulsion, and structures.	X
	Prerequisites: EGN 3343, EML 3500 and EML 3035	
	Instructor: Dr. Sonya Tiomkin	
	Propulsion	

Introduction to the design of propulsion systems. Basic analysis of internal combustion, jet and rocket engines. Application to ground and

**EML 4419** 

# **Outside-Department Technical Electives**

Note:

## ISO 9000/14000

## EIN

4178 This course covers analysis of ISO 9000 and ISO 14000 publications with a view towards understanding the