



Segment One - General Education Requirements

60 Credit Hours - Each course is 6 credit hours

The general education requirements provide a broad foundation in the basic academic disciplines and offer students the opportunity to explore the breadth of the liberal arts and sciences. The following courses offered by Madison University meet the general education requirements for undergraduate students:

Course Number	Course Title
BIOL – EEC 101	Biology
COMM – EEC 101	Introduction to Communication
ENGL – EEC 101	English Composition I
ENGL – EEC 102	English Composition II
GEO – EEC 101	Introduction to Geography
HIS – EEC 101	Introduction to American History
HIS – EEC 102	Introduction to World History
MATH – EEC 101	Basic Principle of Mathematics
PHIL – EEC 101	Introduction to Philosophy
SOC – EEC 101	Introduction to Sociology

Segment Two - Concentration Requirements

60 Credit Hours - Each course is 6 credit hours

AERO 30301 Principles of Flight	
This course provides a comprehensive study of methods and practices of flight.	
Textbook: Aircraft Flight: A Description of the Physical Principles of Aircraft Flight, 2nd edition	
ISBN#: 0-582-23656-8	
AERO 30302 Aerodynamics	
This course provides a comprehensive study of theoretical and practical applications of aerodynamics, as it relates to aircraft design and flight.	
Textbook: Fundamentals of Aerodynamics	
ISBN#: 0-07-001679-8	
AERO 40401 Power Plants and Systems	
Textbook: Aircraft Powerplants, 7th edition	
ISBN#: 0-02-801874-5	
AERO 40402 Air Regulations	
This course provides the basic information on airborne equipment, ground-based but aviation related equipment, and aerospace systems needed to design, maintain, and repair aviation electronics.	
Textbook: Introduction to Avionics, 1 st edition	
ISBN#: 0-13-227489-2	



ENGR 30202 Introduction to Dynamics	
This course provides an overview of the subject of dynamics, including kinematics, mass distribution, motion and more.	
Textbook: Engineering Mechanics: Dynamics, 9th edition	
ISBN#: 0-130-20004-2	
ENGR 30203 Manufacturing Process	
Manufacturing system dynamics and controls of mechanical systems; robotics systems and their applications; numerical machine program generation from geometrical images.	
Textbook: Introduction to Manufacturing Process, 3rd edition	
ISBN#: 0-07-031136-6	
ENGR 30211 Mechanics/Strengths of Materials	
This course teaches the fundamental concepts of mechanics of materials with an emphasis on practical applications.	
Textbook: Statics and Strength of Materials, 4th edition	
ISBN#: 0-07-004023-0	
ELEC 30101 Circuit Analysis/Electronics	
Introduction to basic electrical circuit analysis. Includes the characteristics of modern solid-state non-linear and active devices, representative circuit models and the analysis and design of typical circuits using these devices.	
Textbook: Basic Engineering Circuit Analysis, 7th edition	
ISBN#: 0-471-40740-2	
BS 400 Bachelor's Final	
The Bachelor's Final Paper or Project.	