

# ADM 162: Additive Manufacturing Processes - Polymers

This course focuses on the basic principles and methodology types of polymers and processes created with the Additive Manufacturing (AM) process. Comparison of selecting the best type of manufacturing for products will be discussed. Students will learn proper instruction on safety operations, set-up and routine maintenance and production of the AM Systems, as well as various types of polymers, AM Systems, Fused Deposition Manufacturing (FDM), Polyjet, and Stereolithography (SLA). Students will also learn the design software used for each AM system. Upon completion, students should be able to discuss and understand the significance of polymer materials properties and structure, describe the different types of polymers available for the AM process and explain the benefits of basic polymer rapid prototyping. They should be able to demonstrate how to take a "part" from start to finish on the AM polymer system and be able to select the best process for the type of product being produced.

**(Offered Fall Semester)**

**Credits:** 3

**Prerequisites:**

ADM 112 and ADM 108 OR DDT 109 OR DDT 144 OR EGR 125

**Program:** Advanced Manufacturing

**Experimental Laboratory Credit:** 4

**Theory Credit:** 1