

STUDENT OUTCOMES

ABET - Engineering Technology Accreditation Commission Student Outcomes Requirements

#1	An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
#2	An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
#3	An ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
#4	An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
#5	An ability to function effectively as a member as well as a leader on technical teams.

Student Learning Outcome by Course

Course	#	Outcome Number Met & Description
AFMT 310	#1	Students will be able to assess aviation safety programs and issues related to aviation safety.
	#2	Students will be able to assess human factors causal effect within aviation industries and recommend best practices for aviation manufacturing industries.
	#4	Students will be able to assess case studies and required documentation, provide detailed report that includes the assessment of support documentation that failed to support the technician.
AFMT 320	#1	Students will be able to utilize Lean Management tools.
	#2	Students will be able to conduct a Lean operations event.
	*	Students will be able to identify waste and final value stream.
	*	Students will be able to build paper aircraft project.
AFMT 330	#1	Students will be able to utilize yield and affect data to determine alternate part selection and process improvements.
	#4	Students will be able to analyze industry reliability data and selection of processes requiring improvements.
	#2	Students will be able to identify and sequence manufacturing processes to include human factor engineering parts protection and process selection.
AFMT 340	*	Students will be able to describe the history, fundamentals and advances in low observable technology.
	#2	Students will be able to identify common problems/errors in low observable technology and current industry solutions.
	#1	Students will be able to evaluate low observable case studies and documentation designed to assess technical errors most commonly associated with airframe manufacturing industries.

Course	#	Outcome Number Met & Description
AFMT 341	#4	Student will be able to assemble, rig, and test an aircraft flight control system.
	*	Student will be able to demonstrate hydro and leak test utilizing the appropriate safety precautions and requirements.
	*	Students will be able to build a sub-assembly and prepare for inspection and testing.
AFMT 345	#1	Students will be able to fabricate and evaluate manufacturing, planning, and in-process inspection on a composite part.
	*	Students will be able to demonstrate and evaluate proper mold preparations and vacuum bagging processes for complex parts.
	*	Students will be able to select non-destructive inspection methods for composite structures.
AFMT 350	#5	Student will demonstrate the ability to prepare a draft capstone proposal.
AFMT 442	#1	Student will be able to identify likely path(s) that foreign object debris transition through in the manufacturing process.
	*	Students will be able to create a FOD and demonstrate an effective FOD barrier.
	#4	Students will be able to demonstrate the concepts of Six Sigma or 5S.
	*	Students will be able to demonstrate the use of parts protection devices to prevent FOE introduction.
AFMT 446	#1	Students will be able to fabricate and evaluate manufacturing, planning, and in-process inspection on a composite part.
	#4	Students will demonstrate proper methods of fabricating and inspecting a composite component throughout the manufacturing process to a finished part.
	*	Students will demonstrate proper selection and inspection of various resin infusion processes.
AFMT 451	#5	Students will demonstrate the ability to prepare a final capstone proposal.

*AVC required outcome