

CURRICULUM MAP

Cluster: Science, Technology, Engineering and Mathematics Cluster

CTE Program of Study: ST2200 Aerospace Engineering (Advanced Career)

STANDARD	%	SKILL SET/COMPETENCY Workplace Readiness Test Code: 3033	REQUIRED CORE COURSES FOR COMPLETION			
			1 st Course AC Aerospace Engineering I 1540	2 nd Course AC Aerospace Engineering II 1541	3 rd Course AC Aerospace Engineering III 1542	4 th Course AC Aerospace Engineering IV 1543
Communication:	24%	Apply strategies to enhance effectiveness of all types of communications in the workplace	X	X	X	X
Communicate in multiple modes to address needs within the career technical field		Apply reading strategies as needed for a variety of purposes	X	X	X	X
		Evaluate information contained in documents	X	X	X	X
		Apply basic communication skills when writing	X	X	X	X
		Write technical materials	X	X	X	X
		Develop presentations using appropriate technologies (e.g., tables, charts, and visual graphics)	X	X	X	X
		Apply oral communication skills	X	X	X	X
		Deliver presentations	X	X	X	X
		Apply active listening skills	X	X	X	X
		Apply nonverbal communication skills	X	X	X	X
		Communicate with others in a workforce of diversity (e.g., age, ethnicity, religion, gender)	X	X	X	X
		Share information using a range of appropriate communications technologies	X	X	X	X
Problem Solving and Critical Thinking:	19%	Define the problem	X	X	X	X
Solve problems using critical thinking		Analyze the problem	X	X	X	X

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		Research reliable information relevant to the problem	X	X	X	X
		Investigate alternatives based on reasoned criteria	X	X	X	X
		Identify appropriate solutions	X	X	X	X
		Make recommendations	X	X	X	X
		Implement solutions	X	X	X	X
		Evaluate solutions	X	X	X	X
Information Technology Applications:	8%	Identify efficient, effective, and ethical uses of technology in the workplace	X	X	X	X
Apply information technology resources in the workplace		Use information technology tools to access, manage, integrate, and create new information	X	X	X	X
		Use writing/publishing/presentation applications	X	X	X	X
Systems:	9%	Demonstrate an understanding of how business and industry systems function within the economy	X	X	X	X
Work within organizational culture and technological systems		Demonstrate an understanding of the functions of systems in an organization (e.g., management, human resources, production and services)	X	X	X	X
		Demonstrate principles of internal/external customer service	X	X	X	X
		Apply industry quality standards and practices	X	X	X	X
Safety, Health, and Environment:	9%	Ensure safe working conditions	X	X	X	X
Ensure safe and healthful working conditions		Demonstrate safe use of tools and equipment	X	X	X	X
		Ensure healthful working conditions	X	X	X	X

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		Practice environmental conservation and safety	X	X	X	X
Leadership and Teamwork:	11%	Demonstrate leadership skills	X	X	X	X
Enhance work outcomes through leadership, management, and teamwork		Organize work	X	X	X	X
		Apply management techniques	X	X	X	X
		Demonstrate group process techniques	X	X	X	X
		Perform work tasks in a team	X	X	X	X
Ethics and/or Legal Responsibilities:	6%	Apply professional and ethical standards to workplace conduct	X	X	X	X
Practice professional, ethical, and legal behavior consistent with workplace standards		Adhere to established laws, policies, and procedures	X	X	X	X
Employability and/or Career Development:	14%	Develop a career plan			X	X
Progress on a purposeful career path through application of employability skills		Seek employment				X
		Apply for employment				X
		Evaluate job offers				X
		Demonstrate employability skills needed to keep a job			X	X
		Demonstrate personal qualities appropriate to the work environment			X	X

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		Assess alternative occupational opportunities (e.g., working conditions, benefits, and opportunities for change)			X	X
Literacy and Numeracy		literacy and numeracy skills required to solve complex.	X	X	X	X
		real-world problems associated with their career/technical content area.	X	X	X	X
		improve their thinking and reasoning skills.	X	X	X	X
		utilize a variety of technical sources (e.g., Internet, manuals, journals, directions, reports, etc.) to complete career/technical assignments and projects.	X	X	X	X
		demonstrate writing skills required to complete career/technical assignments and projects.	X	X	X	X
		demonstrate accuracy in calculating and measuring graphical work required to complete career/technical assignments and projects.	X	X	X	X
		analyze tables, charts, graphs and multiple data sources to complete career/technical assignments and projects.	X	X	X	X

In order to access content skill sets for Aerospace Engineering, teachers must attend Summer Teacher Training Institute (STTI) in Alabama.

http://www.sreb.org/page/1608/Advanced_Career.html

WVEIS Code	Course
1540	AC Aerospace Engineering I
1541	AC Aerospace Engineering II
1542	AC Aerospace Engineering III
1543	AC Aerospace Engineering IV