Georgia CTAE

Exploring Engineering and Technology (2019)

Demonstrate employability skills required by business and industry. MS-ENGR-EET-1	**A**	**Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.** MS-ENGR-EET-1.1
	B	**Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.** MS-ENGR-EET-1.2
	C	**Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.** MS-ENGR-EET-1.3
	D	**Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.** MS-ENGR-EET-1.4
	E	**Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.** MS-ENGR-EET-1.5
	F	**Present a professional image through appearance, behavior and language.** MS-ENGR-EET-1.6
Demonstrate proper safety techniques and tool usage in the Engineering and Technology Laboratory MS-ENGR-EET-2	**A**	**Accurately interpret and adhere to safety signs, symbols, and labels.** MS-ENGR-EET-2,1
	B	**Demonstrate and incorporate safe laboratory procedures in lab, shop, and field environments.** MS-ENGR-EET-2.2
	C	**Identify, select, and use appropriate Personal Protective Equipment (PPE), follow work area organization procedures and follow Standard Operating Procedures (SOP) when performing work.** MS-ENGR-EET-2.3
	D	**Identify, select, and use appropriate tools and machines for specific tasks.** MS-ENGR-EET-2.4
	E	**Demonstrate safe use of tools and machines.** MS-ENGR-EET-2.5
Identify engineering and technology and its	**A**	**Explore the historical impacts of engineering & technology** MS-ENGR-EET-3.1

impact on society MS-ENGR-EET-3	**B** Examine the effects of engineering & technology on society including social, cultural, political, economic and environmental impacts. MS-ENGR-EET-3.2
	C Assess the impact(s) of technological products and systems. MS-ENGR-EET-3.3
	D Demonstrate an understanding of the Universal Systems Model. MS-ENGR-EET-3.4
Apply the Engineering Design Process to generate a solution to hands-on design challenges. MS-ENGR-EET-4	**A** Examine the engineering design attributes MS-ENGR-EET-4.1
	B Demonstrate the principles of research and design MS-ENGR-EET-4.2
	C Use math and science to create solutions to engineering problems MS-ENGR-EET-4.3
	D Utilize the engineering design process MS-ENGR-EET-4.4
	E Use and maintain technological products and systems MS-ENGR-EET-4.5
	F Apply the Universal Systems Model to existing systems MS-ENGR-EET-4.6
	G Utilize an Engineering Notebook as a record of process MS-ENGR-EET-4.7
Examine and research careers in fields related to engineering & technology. MS-ENGR-EET-5	**A** Investigate educational requirements, job responsibilities, employment trends, and opportunities within engineering and technology career pathways using credible sources. MS-ENGR-EET-5,1
	B Investigate earnings potential for engineering & technology careers MS-ENGR-EET-5.2
	C Identify gender and diversity related issues in engineering & technology careers MS-ENGR-EET-5.3
Explore how related career and technology student organizations are integral parts of career and technology education courses. Students will develop leadership, interpersonal, and problem-solving skills through participation in co-curricular activities associated with the Technology Student Association. MS-ENGR-EET-6	**A** Explain the goals, mission and objectives of CTSO organizations. MS-ENGR-EET-6.1
	B Explain how participation in career and technology education student organizations can promote lifelong responsibility for community service and professional development MS-ENGR-EET-6.2
	C Demonstrate teamwork, leadership, interpersonal relations, and project management skills. MS-ENGR-EET-6.3