

Practicum in Construction Technology

At-A-Glance - Lamar CISD

Ongoing Skills Imbedded All Year	Professional Standards/Employability Skills/Technical Skills		
Grading Period	Unit Name	Estimated Time Frame	TEKS
Grading Period 1 28 Days	Career and Employability Skills	5 Days	1A, 1B, 1C, 1D, 1E, 1F, 1G
	PCT 1(A) The student will explain the role of an employee in the construction industry. PCT 1(B) The student will demonstrate critical-thinking skills. PCT 1(C) The student will demonstrate the ability to solve problems using critical-thinking skills. PCT 1(D) The student will demonstrate knowledge of basic computer systems. PCT 1(E) The student will explain common uses for computers in the construction industry. PCT 1(F) The student will demonstrate effective relationship skills. PCT 1(G) The student will recognize workplace issues such as sexual harassment, stress, and substance abuse.		
	Project Requirements	5 Days	2A, 2B, 2C
	PCT 2(A) The student will identify and describe the steps required to complete a project using project management processes, including initiating, planning, executing, monitoring and controlling, and closing a project. PCT 2(B) The student will determine and acquire the resources needed to complete a project. PCT 2(C) The student will develop a project schedule.		
	Code, Laws, Regulations	10 Days	3A, 3B, 3C
	PCT 3(A) The student will identify areas where codes, laws, standards, or regulations may be required. PCT 3(B) The student will locate the appropriate codes, laws, standards, or regulations. PCT 3(C) The student will interpret and follow the appropriate codes, laws, standards, or regulations.		
	Project Flowchart	6 Days	4A, 4B, 4C, 4D
	PCT 4(A) The student will use an assessment strategy to determine the task's needs. PCT 4(B) The student will describe why each task needs to be in the order it has been assigned. PCT 4(C) The student will assess the time frame for each task. PCT 4(D) The student will plot a completed project flowchart expectation.		
Technological Solutions	2 Days	5A, 5B, 5C	
PCT 5(A) The student will develop or improve a product by following a problem-solving strategy. PCT 5(B) The student will apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions. PCT 5(C) The student will apply decision-making techniques to the selection of technological solutions.			
Grading Period 2 25 Days	Budget	5 Days	6A, 6B, 6C
	PCT 6(A) The student will develop a bill of materials list for the complete project. PCT 6(B) The student will develop a budget, including a cost list, for the complete project. PCT 6(C) The student will determine the most effective way to minimize project costs.		
	Technical Report	10 Days	7A, 7B, 7C, 7D
PCT 7(A) The student will write technical reports. PCT 7(B) The student will deliver technical presentations to the instructor. PCT 7(C) The student will identify and describe the mathematical concepts used in projects. PCT 7(D) The student will identify and describe the science concepts used in projects.			

	Construction Project Expectations	10 Days	8A, 8B, 8C
	<p>PCT 8(A) The student will determine and use the appropriate technology needed to solve a problem or complete a task. PCT 8(B) The student will evaluate the use of technology in a given situation. PCT 8(C) The student will describe the factors that influence the use of technology in a variety of situations.</p>		
Grading Period 3 25 Days	Technology	10 Days	8A, 8B, 8C, 9A, 9B, 9C
	<p>PCT 8(A) The student will determine and use the appropriate technology needed to solve a problem or complete a task. PCT 8(B) The student will evaluate the use of technology in a given situation. PCT 8(C) The student will describe the factors that influence the use of technology in a variety of situations. PCT 9(A) The student will use an accepted design process to design an object or a service. PCT 9(B) The student will develop drawings, illustrations, or models. PCT 9(C) The student will establish design criteria and constraints.</p>		
	Emerging Technology	15 Days	10A, 10B, 10C, 11A, 11B, 11C
	<p>PCT 10(A) The student will describe the emerging and innovative technologies being developed in a field. PCT 10(B) The student will identify the factors that may influence the adoption of emerging and innovative technologies. PCT 11(A) The student will define quality. PCT 11(B) The student will assess the quality of specific products and services. PCT 11(C) The student will determine how the quality of a product or service can be improved.</p>		
Grading Period 4 33 Days	Tools & Safety	13 Days	12A, 12B, 13A, 13B, 14A, 14B, 14C, 15A, 15B
	<p>PCT 12(A) The student will use a variety of tools, equipment, machines, materials, and processes to build products in a more efficient manner. PCT 12(B) The student will demonstrate advanced construction management skills. PCT 13(A) The student will recommend improvements to safety standards. PCT 13(B) The student will specify safety devices that allow for the safe completion of a task. PCT 14(A) The student will handle and store tools and materials correctly. PCT 14(B) The student will locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines. PCT 14(C) The student will describe the results of negligent or improper maintenance. PCT 15(A) The student will identify the factors that influence the cost of a project, product, or service. PCT 15(B) The student will select materials or processes that will reduce the cost of producing the product or delivering the service.</p>		
	Project	20 Days	16A, 16B, 16C
	<p>PCT 16(A) The student will develop a school-based learning activity in collaboration with the teacher and at least one related industrial mentor that provides an in-depth study of at least one aspect of construction management independent study. PCT 16(B) The student will present the project in at least two formats such as model, graphic, verbal, written, or other to a panel of students, teachers, and practitioners in construction management. PCT 16(C) The student will deliver the project's final product(s) that demonstrate(s) the use of a variety of resources, technologies, and communications skills.</p>		
Grading Period 5 34 Days	Etiquette & Communication	17 Days	17A, 17B, 17C, 17D, 17E, 17F, 17G
	<p>PCT 17(A) The student will demonstrate effective verbal, nonverbal, written, and electronic communication skills. PCT 17(B) The student will demonstrate effective methods to secure, maintain, and terminate employment. PCT 17(C) The student will demonstrate positive interpersonal skills, including conflict resolution, negotiation, teamwork, and leadership. PCT 17(D) The student will evaluate the relationship of good physical and mental health to job success and achievement. PCT 17(E) The student will demonstrate appropriate grooming and appearance for the workplace. PCT 17(F) The student will demonstrate appropriate business and personal etiquette in the workplace. PCT 17(G) The student will exhibit productive work habits and attitudes.</p>		
	Construction Management	17 Days	18A, 18B, 18C, 18D, 18E, 18F
	<p>PCT 18(A) The student will determine preparation requirements for various levels of employment in a variety of careers in construction management. PCT 18(B) The student will analyze the future employment outlook of construction management. PCT 18(C) The student will describe entrepreneurial opportunities in construction management. PCT 18(D) The student will determine how interests, abilities, personal priorities, and family responsibilities affect career choice. PCT 18(E) The student will compare rewards and demands for various levels of employment in a variety of careers. PCT 18(F) The student will determine continuing education opportunities that enhance career advancement and promote lifelong learning.</p>		

Grading Period 6 28 Days	Rights & Responsibilities	12 Days	19A, 19B, 19C, 19D, 19E
	PCT 19(A) The student will summarize the rights and responsibilities of employers and employees. PCT 19(B) The student will exhibit ethical practices as defined in construction management. PCT 19(C) The student will analyze legal aspects of construction management. PCT 19(D) The student will describe and use the scientific method, technological method, or universal systems model to conduct a research activity. PCT 19(E) The student will identify the inputs, processes, outputs, and feedback associated with research, design, and development activities.		
	Factors	8 Days	20A, 20B, 20C, 20D
	PCT 20(A) The student will apply technology to individual or community problems. PCT 20(B) The student will describe the factors that affect the purchase and use of items. PCT 20(C) The student will differentiate between research, design, and development. PCT 20(D) The student will distinguish between adaptation, imitation, innovation, and invention.		
	Portfolio	8 Days	21A, 21B, 21C, 21D
PCT 21(A) The student will develop or improve a product or service that meets a specified need. PCT 21(B) The student will identify areas where quality, reliability, and safety can be designed into a product. PCT 21(C) The student will describe the functions and methodologies used in basic and applied research. PCT 21(D) The student will develop a project portfolio that documents a research and development project.			