Technical Project Management Student Learning Outcomes

	Knowledge	Student Learning Outcomes
K-1	Knowledge of emerging technologies.	Name the basic business systems from their hierarchy and procedures to project planning, evaluation, strategic planning, resource allocation, human resource usage, and enterprise information technology.
K-16	Knowledge of company system's hierarchy, system procedures and constraints, and standard operating procedures regarding project plan evaluation, resource allocation and availability, as well as project reviews and changes.	
K-7	Knowledge of resource management principles and techniques.	
K-8	Knowledge of business and management principles involved in strategic planning, resource allocation, coordination of human resources modeling, leadership technique, production methods, and coordination of people and resources.	
K-10	Knowledge of the organization's enterprise information technology (IT) goals and objectives.	
K-25	Knowledge of project management terminology (specifically definitions and roles of Product Manager, Program Manager and Project Manager).	
K-9	Knowledge of system life cycle management principles, including software security and usability.	Show the use of waterfall methodology and/or Scrum boards in designing an information technology/engineering project, including project concepts such as system life cycle, management principles, and software security and usability.
K-11	Knowledge of how information needs and collection requirements are translated, tracked, and prioritized across the extended enterprise.	
K-21	Knowledge of agile methodologies (iterative/adoptive).	
K-22	Knowledge of waterfall methodology.	
K-23	Knowledge of the elements of a Scrum board and how they operate.	
K-2	Knowledge of risk management processes (e.g., methods for assessing and mitigating risk).	Describe how to find potential issues and resolve them before they become a problem.
K-6	Knowledge of Risk Management Framework (RMF).	
K-14	Knowledge of risk/threat assessment.	
K-3	Knowledge of benchmarking.	Show iterative and adaptive technologies within project management software and planning tools, including tracking and milestones to keep project stakeholders informed.
K-13	Knowledge of project management software and planning tools, including tracking and milestones.	
K-24	Knowledge of documentation mechanisms and procedures.	
K-4	Knowledge of information technology (IT) architectural concepts and frameworks, regulations, and mapping.	List practical applications of acquisition/procurement (IT), engineering science and technology, life cycle processes, and design principles.
K-5	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.	
K-17	Knowledge of information technology (IT) acquisition/procurement requirements and life cycle process.	
K-12	Knowledge of the organization's core business/mission processes.	Tell how to translate, track, and prioritize information collection and needs requirements within a business setting using accepted analysis methods.
K-15	Knowledge of principles and processes for providing customer and professional services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.	
K-18	Knowledge of capabilities and requirements analysis.	
K-19	Knowledge of industry-standard and organizationally-accepted analysis principles and methods.	
K-20	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.	Select the proper structure and content of the English language, including the correct use of composition and grammar.
	Skills	Student Learning Outcomes
S-1	Skill in identifying measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system.	Monitor progress against plan and develop recommendations for alternative approaches to problems that arise; provide guidance to the project stakeholders.
S-3	Skill in thinking critically, evaluating pros and cons of different ways to solve a problem.	
S-9	Skill in actively learning - Figuring out how to use new ideas or things.	
S-11	Skill in monitoring: Keeping track of how well people and/or groups are doing in order to make improvements.	
S-13	Skill in problem solving: Noticing a problem and figuring out the best way to solve it.	
S-6	Skill in coordinating and changing what is done based on other people's actions.	Develop a Gantt chart using productivity software (spreadsheets, word processing, email, collaboration tools, and file sharing) to manage time and manage the time of others.
S-7	Skill in managing your time and the time of other people.	
S-15	Skill in using productivity software, spreadsheets, word processing, email, collaboration tools, and file-sharing.	
S-2	Skill to translate, track, and prioritize information needs and intelligence collection requirements across the extended enterprise.	Develop a project model that demonstrates the ability to translate, track, and prioritize information using intelligent information collecting procedures.
S-4	Skill in writing materials for co-workers or customers.	
S-5	Skill in reading work-related information.	
S-10	Skill in communicating with others virtually and in person.	Build an agile team, and with the team, demonstrate skills in presenting and sharing information, (both virtually and in-person), with other members. Focus on improving skills in influencing others, facilitation, and conflict resolution within the team.
S-10a	Skill in sharing and presenting information to others.	
S-14	Skill in negotiating: Bringing people together to solve differences.	
S-16	Skill in working with agile teams.	
S-17	Skill in conflict resolution.	
S-18	Skill in facilitation.	
S-19	Skill in effectively influencing others.	

S-20	Skill in documenting key decisions.	Construct project plans that will define scope, communication procedures, system implementation, time requirements, and document key decisions.
S-21	Skill in effectively managing change and the communication and enforcement thereof.	
S-8	Skill in listening to others, not interrupting, and asking good questions.	Apply effective collaboration and communication skills to improve team productivity.
S-12	Skill in social perceptiveness: Understanding people's reactions.	
S-22	Skill in adaptive project management.	

Abilities		**Student Learning Outcomes**
A-1	Ability to use rules to solve problems.	Apply general rules or develop answers from detailed information and develop new ideas through brainstorming as well as model new ideas critiquing project plans.
A-2	Ability to make general rules or come up with answers from detailed information.	
A-4	Ability to brainstorm ideas.	
A-6	Ability to critique project plans.	
A-3	Ability to sequence and arrange activities.	Organize activities sequentially and make use of the ability to adjust plans and milestones to develop alternate plans or workarounds to changing priorities or customer requirements.
A-5	Ability to adjust plans and milestones to changing priorities or customer requirements.	
A-7	Ability to develop alternative plans and workarounds.	
A-9	Ability to forecast project resource and budgetary needs.	Construct a forecast or project resources and budgetary needs based on a specific scenario.
A-8	Ability to diagram or document interdependencies.	Develop diagrams or documents showing interdependencies used to evaluate the impact of changes on a project plan. Further, create and deliver presentations which document the changes and deliver the presentation to a customer.
A-10	Ability to evaluate impact of changes on project plan.	
A-11	Ability to develop and deliver presentations.	