

# CTE Aerospace Engineering

- PS 1 Explain, separate, and gather information to create a solution for a problem.
- PS 2 Generate, record, and develop preliminary ideas in an open forum.
- PS 3 Identify, research, and compile ideas to report solutions to a problem.
- PS 4 Identify criteria, constraints, and solutions to a given problem.
- PS 5 Identify alternative ideas based upon criteria and constraints through generating refined ideas.
- PS 6 Analyze, confirm, and create the best approach to solve a problem.
- PS 7 Generate, develop, and explain ideas about the solutions to a problem.
- PS 8 Construct and analyze a prototype from the working drawings so a solution can be tested.
- PS 9 Design and test prototypes to gather performance data to evaluate the solution to the problem.
- PS 10 Analyze, evaluate, and interpret possible new ideas to enhance product performance.
- PS 11 Incorporating the design process procedures for the final solution to the problem.
- PS 12 Analyzing final solution to a problem by communicating and interpreting data through a presenting process.
- PS 13 Students understand the applications and implications of science and engineering in society.
- PS 14 Use mathematical and computational thinking.
- PS 15 Represent and interpret position, velocity, and acceleration accurately using diagrams, vectors, and graphs, and solve kinematic equations.
- PS 16 Use Newton's Laws to describe forces in one dimension.
- PS 17 Use Newton's Laws to describe forces in two dimensions.
- PS 18 Use Newton's Law of Universal Gravitation and analyze objects undergoing uniform circular motion.
- PS 19 Work, Energy, Power: Understand the definition of work, including when it is positive, negative, or zero and apply the work-energy theorem.
- PS 20 Understand the electromagnetic spectrum and properties of light.
- PS 21 Electrostatics: Understand electric charge and properties of electrostatics.
- PS 22 Electric Circuits: Understand electric current and potential difference as they apply to electric circuits.
- PS 23 Employability Skills.
- PS 24 11-12.RST.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- PS 25 11-12.RST.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- PS 26 11-12.RST.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.
- PS 27 11-12.RST.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- PS 28 11-12.WHST.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- PS 29 11-12.WHST.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

