

Core Concept: Design Communication

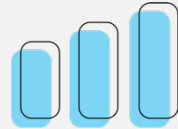
Engineering Literacy Dimension: Engineering Practices

Practice: Engineering Design

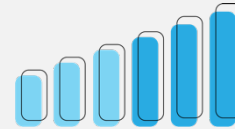
Overview: *Design Communication* is the process of effectively and efficiently sharing ideas, decisions, information, and results with team members and various stakeholders throughout the design process as well as with the intended audiences at the conclusion of a design project (which can include conveying the information necessary to describe the results of the project, produce/implement a design solution, and to use the design product). Sophistication in this process requires knowledge related to (a) *technical writing*, (b) *presentation delivery methods and tools*, (c) *informational graphics*, and (d) *visual design*. This core concept is important to the practice of Engineering Design as an engineering professional's work is only as good as their ability to communicate to it others.

Performance Goal for High School Learners

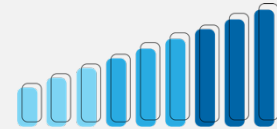
I can successfully articulate my ideas, decisions, and information throughout, and at the conclusion of, a design project, with the consideration of the target audience through a variety of verbal and visual communication strategies and tools.



Basic



Proficient



Advanced

TECHNICAL WRITING

I can identify key information of my design project.

I can effectively organize key information of my design project.

I can develop a technical report, presenting key information of my design project accurately and effectively in a certain format that is used in engineering and technology industries.

PRESENTATION DELIVERY METHODS & TOOLS

I can understand and explain the benefits and limitations of each presentation tool in presenting my ideas in an engineering design project.

I can select the most effective and efficient tool to present my idea in a certain stage of design process, and if needed, plan to combine multiple tools.

I can develop an engaging presentation by considering my audience and objectives of the presentation in a certain stage of design process and by making the best use of a variety presentation tools.

INFORMATIONAL GRAPHICS

I can understand and explain the benefits and limitations of each information graphic tool, such as tables, graphs, charts, and diagrams.

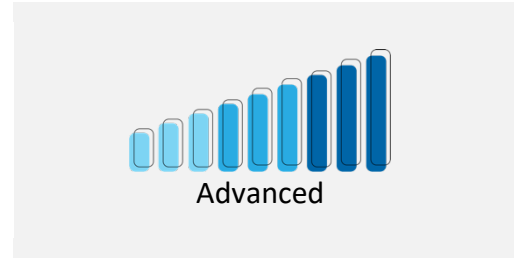
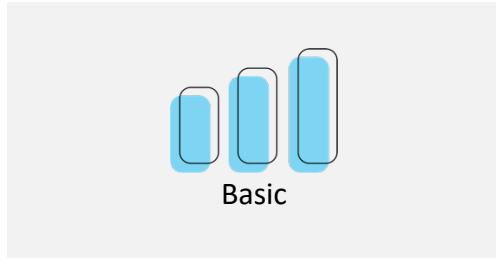
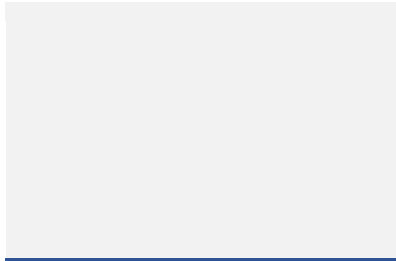
I can select the most effective and efficient graphic tool in consideration of the characteristics of my information to be presented, and if needed, plan to combine multiple graphics.

I can develop an original information graphic to present my information accurately, effectively, and efficiently.

Core Concept: Design Communication Cont.

Performance Goal for High School Learners

I can successfully articulate my ideas, decisions, and information throughout, and at the conclusion of, a design project, with the consideration of the target audience through a variety of verbal and visual communication strategies and tools.



VISUAL DESIGN

I can understand and explain how visual design elements, such as color choice, layout, and placement, can enhance the audience's understanding of conceptual ideas.

I can select the most effective and efficient visual design strategies in the consideration of my audience and objectives of the presentation.

I can develop an effective and efficient presentation by using a variety of visual design strategies.