

## Objective 2.1: Knowledge of the Liberal Arts

## Course: Engineering Physics I (PHYS 211)

Students will possess a broad understanding of how to think about the world, having studied the modes of inquiry characteristic of humanities, mathematics, natural sciences, and social and behavioral sciences.

### Outcomes 2.1-D: Natural Scientific Mode of Inquiry (lecture course)

By graduation students will:	Not Proficient	Developing Proficiency	Proficient	Exceeding Proficiency
Identify essential characteristics of natural science questions (questions of empirical study and applications of scientific methodologies).	Student correctly identifies 0-60% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:1.	Student correctly identifies 61-69% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:1.	Student correctly identifies 70-89% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:1.	Student correctly identifies 90+% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:1.
Evaluate the merits of examples of natural scientific research at the level of an informed citizen.	Student correctly identifies 0-60% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:2.	Student correctly identifies 61-69% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:2.	Student correctly identifies 70-89% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:2.	Student correctly identifies 90+% of the essential characteristics tested on the end of semester WCOSTM comprehensive quiz approved for outcome 2.1-D:2.

**Assignment meeting Outcome 1:** Scientific methods and their utilization are integrated across PHYS 211. Students will be assessed on these concepts at the end of the semester by completing the WCOSTM common assessment.

**Assignment meeting Outcome 2:** Relevant scientific research, including its merit, is discussed in PHYS 211 throughout the course including the historical development of scientific thought. Students will be assessed on these concepts at the end of the semester by completing the WCOSTM common assessment.