

Photonics Student Writing Outcomes

Revised Blooms taxonomy	Students should be able to:	Activity	Course(s)
1. Remembering	Use correct scientific/engineering vocabulary appropriate for the given audience.	In-class quizzes.	All courses
	Write organized and understandable closed-form prose to communicate results data and results.	Laboratory reports. Literature reviews. Interim and final Senior design reports.	All Lab courses. Frontiers of Photonics. Senior design 1 and 2.
2. Understanding	Write concise explanations of physical processes and phenomena.	In-class writing. Homework assignments, quizzes, exams	All courses
3. Applying	Describe in words the strategy for solving a problem.	In-class writing. Homework assignments, quizzes, exams	All courses
4. Analyzing	Analyze data, understand trends and patterns, and relate them to concepts. Generalize results to form a theory that predicts future results.	Laboratory reports.	All Laboratory courses
	Summarize published literature and form an argument based on these materials.	Literature reviews.	Frontiers of Photonics
5. Evaluating	Read literature, patents and evaluate whether conclusions are supported by findings. Distinguish between types of published materials (peer-reviewed, unreviewed, popular press, etc.)	Literature reviews.	Frontiers of Photonics
	Evaluate different approaches to designing a product or process.	Initial Senior design report.	Sr. Design 1
		In-class writing assignments or homework assignments.	All courses.
6. Creating	Explain the procedure involved in designing something. (instrument, device, system)	In-class assignment	All courses
	Write a design proposal.	Senior Design 1 proposal.	Sr. Design 1.