

Bachelor of Science in Optical Sciences and Engineering[†]

College of Optical Sciences

Mapping of Courses and Activities to Program Outcomes

Curriculum	Program Outcomes						
	Have a good understanding of the basic physics and mathematics underlying optical phenomena and optical systems	Are able to apply their understanding of physics and mathematics to solve technical and engineering problems	Are able to effectively use optical components, optical and electronic instruments, and computers to perform experiments and do testing in an optics laboratory	Are able to work effectively in teams to solve engineering and design problems	Are able to design optical systems and components as needed in their professional careers	Are able to effectively communicate with others both orally and in writing	Understand their professional and ethical responsibilities as engineering or scientific professionals
	(ABET: A,E,H,K)	(ABET: A,E,I,K)	(ABET: B,C,E,J,K)	(ABET: D)	(ABET: B,C,D,E,I,J,K)	(ABET: G)	(ABET: F,H,I)
OPTI 201L	L	H	H	H	L	M	
OPTI 201R	H	H			M		
OPTI 202L	L	H	H	H	H	M	
OPTI 202R	M	H		M	H	M	M
OPTI 240	H	H	L	M	M	M	
OPTI 280	L	H	M	L	L	L	L
OPTI 310	H	M	L	L	L		
OPTI 330	H	H	L				L
OPTI 340	H	M	L	L	H	H	L
OPTI 370	H	H	M	L	M	L	L
OPTI 380A	H	M	H	H	M	H	L
OPTI 380B	L	H	H	H	L	H	
OPTI 406	H	H	M		M	L	
OPTI 415		M	L		M	H	
OPTI 421	M	H	M	H	H	H	
OPTI 430	H	H	M	M	H	L	L
OPTI 471A			H	H	H	H	
OPTI 471B	L	L	H	M	H	H	L

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Program Outcomes

H = High
M = Medium
L = Low
✓=External to OSE

Have a good understanding of the basic physics and mathematics underlying optical phenomena and optical systems (ABET: A,E,H,K)	Are able to apply their understanding of physics and mathematics to solve technical and engineering problems (ABET: A,E,I,K)	Are able to effectively use optical components, optical and electronic instruments, and computers to perform experiments and do testing in an optics laboratory (ABET: B,C,E,J,K)	Are able to work effectively in teams to solve engineering and design problems (ABET: D)	Are able to design optical systems and components as needed in their professional careers (ABET: B,C,D,E,I,J,K)	Are able to effectively communicate with others both orally and in writing (ABET: G)	Understand their professional and ethical responsibilities as engineering or scientific professionals (ABET: F,H,I)
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Curriculum

ECE 207/220	✓	✓		✓		
ENGR 102		✓		✓	✓	✓
ENGR 498 A & B		✓	✓	✓	✓	✓
MATH 124/125	✓					
MATH 129	✓					
MATH 223	✓					
MATH 254	✓					
MATH 322	✓					
CHEM 151	✓					
PHYS 141	✓					
PHYS 241	✓					

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