

FOUR-YEAR DEGREE PLAN

Rev. 7/2023

College: Bartlett College of Science & Mathematics
 Department: Physics, Photonics and Optical Engineering
 Program: **Photonics and Optical Engineering, B.S.**

Students Placing into MATH 161E.

Note: This is an example plan for a full-time student to satisfy the requirements of this program within eight fall/spring semesters. Core Curriculum distribution requirements are not displayed in this plan. Some introductory courses may require placement and/or completion of one or more prerequisites which have impact on this plan. Some courses are not offered every semester; this plan is not a guarantee of course availability.

Semester 1	Semester 2
<ul style="list-style-type: none"> ➤ ENGL 101 Writing Rhetorically ➤ PHYS 243 General Physics I © \$ ➤ MATH 161E & 143 Single-Var Calculus I ©* ➤ First-Year Seminar 	<ul style="list-style-type: none"> ➤ ENGL 102 Writing Rhetorically w Sources ➤ PHYS 244 General Physics II © ➤ MATH 162 Single-Var Calculus II © ➤ COMP 111 or CRIT 111 or MATH 180
Semester 3	Semester 4
<ul style="list-style-type: none"> ➤ PHYS 416 Modern Theory © ➤ PHOE 301 Foundations of Photonics & Optical Engineering © ➤ PHYS 403 Mathematical Physics ➤ COMM 102 or THEA 210 	<ul style="list-style-type: none"> ➤ PHYS 438 Electricity and Magnetism © ➤ PHOE 332 Optical Engineering © ➤ PHOE 342 Digital and Electronic Devices ➤ MATH 261 Multivariable Calculus ➤ Second-Year Seminar
Semester 5	Semester 6
<ul style="list-style-type: none"> ➤ CHEM 141 Chemical Principles I © ➤ PHOE 403 Semiconductor Devices ➤ PHOE 330 Fiber Optics Communications ➤ PHYS 422 Computer Simulations in Physics 	<ul style="list-style-type: none"> ➤ CHEM 142 Chemical Principles II ➤ PHOE 420 Laser Engineering ➤ PHOE 450 Photonics Integrated Circuit Design ➤ PHOE Elective (see catalog for listing)
Semester 7	Semester 8
<ul style="list-style-type: none"> ➤ PHOE 483 Senior Design I ➤ PHOE 455 Advanced Optics ➤ PHOE Elective (see catalog for listing) 	<ul style="list-style-type: none"> ➤ PHOE 484 Senior Design II ➤ PHOE Elective (see catalog for listing)

Important Notes:

- \$ Requires placement into MATH 161E.
- © These courses must be completed with C– or higher to meet prerequisites for further courses.
- * Subject to placement. MATH 161E requires qualifying placement test or SAT score, or completion of MATH 150.