

ENGINEERING PHYSICS (BSE)

Offered jointly by the Physics Department of the College of Liberal Arts and Sciences and the College of Engineering

Students choose the college/school that they wish to graduate from and must satisfy the course requirements of either the College of Liberal Arts and Sciences or the College of Engineering to complete their degree.

Students in the College of Liberal Arts and Sciences will earn a Bachelor of Science degree, and Students in the College of Engineering will earn a Bachelor of Science in Engineering degree.

Bachelor of Science in Engineering

The Engineering Physics major requires a total of 132 credits.

Requirements

Course	Title	Credits
Physics Requirements		
PHYS 2300	The Development of Quantum Physics	3
PHYS 3101	Mechanics I	3
PHYS 3201	Electricity and Magnetism I	3
PHYS 3202	Electricity and Magnetism II	3
PHYS 2501W	Advanced Undergraduate Laboratory	4
PHYS 3401	Quantum Mechanics I	3
PHYS 3300	Statistical and Thermal Physics	3
Six credits of PHYS 2000 level or above electives		6
Engineering Requirements		
CSE 1010	Introduction to Computing for Engineers	3
ENGR 1000	Orientation to Engineering	1
ENGR 1166	Foundations of Engineering	3
ENGR 4001	Multidisciplinary Engineering Design I	3
ENGR 4002W	Multidisciplinary Engineering Design II	3
MSE 2001	Introduction to Structure, Properties, and Processing of Materials I	3
or MSE 2101	Materials Science and Engineering I	
MSE 2002	Introduction to Structure, Properties, and Processing of Materials II	3
or MSE 2102	Materials Science and Engineering II	
CE 2110	Applied Mechanics I	3
CE 3110	Mechanics of Materials	3
CE 3120	Fluid Mechanics	4
CHEG 2103	Introduction to Chemical Engineering	3
ECE 2001	Electrical Circuits	4
Select one Thermal Science Elective from the following:		3-4
MSE 3001	Applied Thermodynamics of Materials	
ME 2233	Thermodynamic Principles	
CHEG 2111	Chemical Engineering Thermodynamics I	
Nine credits ENGR electives (three credits may be 2000-level, at least six credit must be 3000-level)		9
Additional Requirements		
MATH 2110Q & MATH 2410Q	Multivariable Calculus and Elementary Differential Equations	7

STAT 3025Q	Statistical Methods	3
Total Credits		86-87

The Engineering Physics undergraduate program educational objectives are that our alumni/ae: contribute to current and future scientific and technological developments in the areas of physics and electrical, mechanical and materials science engineering; excel in engineering and physics careers and responsible citizenship in industry, government, academia and other professional practices; and engage in professional development or graduate education to pursue flexible career paths

University General Education Requirements

Every student must meet a set of core requirements to earn a baccalaureate degree, in addition to those required by the student's major course of study and other requirements set by the student's school or college. For more information about these requirements, please see General Education Requirements (<https://catalog.uconn.edu/undergraduate/gen-ed-requirements/>).

College of Engineering Degree Requirements

Students must meet a set of requirements established by the college in addition to the University's General Education requirements. For more information, see the College of Engineering (<https://catalog.uconn.edu/undergraduate/engineering/#requirementstext>) section of this catalog.