

# ENGINEERING PHYSICS B.S.

## Four Year Plan

**Disclaimer:** This *sample* Four Year Plan is provided as a guide for the recommended sequencing of courses. Vanguard University requires that students complete a minimum of 120 units of required course work as outlined on the Requirements tab in order to receive a Bachelor of Arts, Bachelor of Music, Bachelor of Science, or Bachelor of Science in Nursing degree. It is the student's responsibility to confirm with the department the course rotation before enrolling in courses. If applicable, please note the footnotes at the bottom of the page for additional information related to courses listed in a particular year and term. Questions, contact the Department of Physical Sciences and Applied Mathematics.

**Study Abroad Participation:** Students interested in participating in the university's Study Abroad programs are encouraged to reach out to the Global Education and Outreach Office (studyabroad@vanguard.edu) for more information and collaboration in their academic course planning. Students using Education and Training Benefits through the U.S. Department of Veteran Affairs are encouraged to also reach out to the School Certifying Official (veteranscertifyingofficial@vanguard.edu) for more information regarding how benefits can be applied.

Course	Title	Units
<b>Year 1 Term 1</b>		
CORE-100C	Cornerstone	1
MATH-180C	Calculus I	4
CHEM-120	General Chemistry I	3
CHEM-120L	General Chemistry I Lab	1
NT-101C	New Testament Survey	3
CSCI-110C	Introduction to Computer Science	4
<b>Units</b>		<b>16</b>
<b>Year 1 Term 2</b>		
MATH-181C	Calculus II	4
CSCI-208	Java Programming	4
PSCI-223C	Mechanics of Solids and Fluids	3
PSCI-223CL	Mechanics of Solids and Fluids Lab	1
ENGR-110	Introduction to Engineering	3
NT-101C	New Testament Survey	3
<b>Units</b>		<b>18</b>
<b>Year 2 Term 1</b>		
PSCI-225	Electricity and Magnetism	3
PSCI-225L	Electricity and Magnetism Lab	1
MATH-281	Multivariable Calculus	4
CSCI-218	Python Programming	4
SOC-PLCR	Social Science Core Curriculum Req'm't	3
ENGL-120C	Persuasive Writing	3
<b>Units</b>		<b>18</b>
<b>Year 2 Term 2</b>		
PSCI-227	Waves, Optics and Modern Physics	3

PSCI-227L	Waves, Optics, and Modern Physics Lab	1
ENGR-201	Electric Circuits	4
OT-201C	Old Testament Survey	3
KINE-148C	Lifetime Fitness and Wellness Lecture	3
<b>Units</b>		<b>14</b>
<b>Year 3 Term 1</b>		
MATH-265C	Intro to Statistical Methods	3
ENGR-265	Engineering Statics	3
ENGR-310	Electronics I	3
ENGR-310L	Electronics I Lab	1
ENGL-220C	Researched Writing	3
THEO-300C	Developing a Christian World View	3
<b>Units</b>		<b>16</b>
<b>Year 3 Term 2</b>		
ENGR-202	Engineering Dynamics	3
MATH-390	Numerical Analysis	3
COMM-201C	Speech Composition and Presentation	3
ENGL-230C	Literature and the Human Experience	3
SOC-PLCR	Social Science Core Curriculum Req'm't	3
<b>Units</b>		<b>15</b>
<b>Year 4 Term 1</b>		
ENGR-203	Digital Logic Systems	3
ENGR-400	Introduction to Materials Science Engr.	3
ENGR-400L	Intro/Materials Science Laboratory	1
FINA-PLCR	Fine Arts Core Curriculum Requirement	3
HIST-PLCR1	History Core Req (US Hist Or Democracy)	3
<b>Units</b>		<b>13</b>
<b>Year 4 Term 2</b>		
ENGR-301	Embedded Systems	3
ENGR-485	Undergraduate Research	1-4
ENGR-499C	Engineering Physics Capstone Seminar	2
CHIS-400C	Christian Heritage	3
HIST-PLCR2	History Core Requirement (World Civ)	3
<b>Units</b>		<b>12-15</b>
<b>Total Units</b>		<b>122-125</b>

