

## PHYSICS (COURSE 8)

### Bachelor of Science in Physics (Flexible Option)

#### General Institute Requirements (GIRs)

The General Institute Requirements include a Communication Requirement that is integrated into both the HASS Requirement and the requirements of each major; see details below.

Summary of Subject Requirements	Subjects
Science Requirement	6
Humanities, Arts, and Social Sciences (HASS) Requirement; at least two of these subjects must be designated as communication-intensive (CI-H) to fulfill the Communication Requirement.	8
Restricted Electives in Science and Technology (REST) Requirement [can be satisfied by 8.03 or 8.04, and 18.03 in the Departmental Program]	2
Laboratory Requirement (12 units) [satisfied by 8.13 or equivalent in the Departmental Program]	1
<b>Total GIR Subjects Required for SB Degree</b>	<b>17</b>

#### Physical Education Requirement

Swimming requirement, plus four physical education courses for eight points.

#### Departmental Program

Choose at least two subjects in the major that are designated as communication-intensive (CI-M) to fulfill the Communication Requirement.

Required Subjects	Units
18.03 Differential Equations <sup>1</sup>	12
8.03 Physics III	12
8.04 Quantum Physics I	12
8.044 Statistical Physics I	12
8.21 Physics of Energy	6-12
or 8.223 Classical Mechanics II	
<i>Select one of the following:</i>	9-12
8.05 Quantum Physics II	
8.20 Introduction to Special Relativity	
8.033 Relativity	
<i>Select one of the following experimental experiences, subject to the approval of the department:</i>	18
8.13 Experimental Physics I (CI-M)	
A laboratory subject of similar intensity in another department	
An experimental research project or senior thesis <sup>2</sup>	

An experimentally oriented summer externship

Restricted Electives	
At least one subject in the Department of Physics in addition to those listed above <sup>3</sup>	12
Three subjects forming one intellectually coherent unit in some area, not necessarily physics, subject to the approval of the department	36
<b>Units in Major</b>	<b>129-138</b>
<b>Unrestricted Electives</b>	<b>66-87</b>
Units in Major That Also Satisfy the GIRs	(24-36)
<b>Total Units Beyond the GIRs Required for SB Degree</b>	<b>180</b>

The units for any subject that counts as one of the 17 GIR subjects cannot also be counted as units required beyond the GIRs.

<sup>1</sup> 18.032 Differential Equations is also an acceptable option.

<sup>2</sup> Not more than 30 units of thesis credit may be included in the minimum units beyond the General Institute Requirements required for the SB degree.

<sup>3</sup> Subject descriptions identify subjects that cannot be used for this purpose.

#### Communication-Intensive Subjects in the Major

To satisfy the requirement that students take two CI-M subjects, students must select two of the following:

8.06	Quantum Physics III	12
8.13	Experimental Physics I	18
8.14	Experimental Physics II	18
8.226	Forty-three Orders of Magnitude	12
12.410[[]]	Observational Techniques of Optical Astronomy	15
STS.042[[]]	Einstein, Oppenheimer, Feynman: Physics in the 20th Century	12