

## HONORS IN PHYSICS, ASTROPHYSICS & BIOPHYSICS

The Physics & Astronomy department offers three honors programs in Physics. Option I emphasizes advanced work in mathematics. Option II is for students with an interest in experimental physics and requires a laboratory project culminating in a senior thesis. Option III is for students with an interest in theoretical physics and requires an independent study project culminating in senior thesis.

Eligibility: Completion of prep for the major and four upper division Physics courses, 3.0 GPA overall, and a 3.5 GPA in upper division Physics and Mathematics courses.

Honors programs in Astrophysics and Biophysics requires completion of the major requirements and 8 units of 199 research as well as an overall 3.0 GP Aand a 3.5 in upper division Physics, Astrophysics, Biophysics courses.

Students who complete the above requirements with a 3.5 GPA in upper division and Mathematics courses will graduate with Honors in Physics, Astrophysics, & Biophysics.

**Astrophysics:** major requirements and 8 units of 199 research:      \_\_199      \_\_199

**Biophysics:** major requirements and 8 units of 199 research      \_\_199      \_\_199

**Physics: Option I.**

Physics UD Core	Electives	180 labs	Math
<i>Upper Div Core—All Required</i>	<i>4 required</i>	<i>2 required</i>	<i>115A plus 2 required</i>
__ 105A	__ 114   __ 132	__ 180A	__ 115A
__ 105B	__ 117   __ 140A	__ 180C	<i>plus 2 courses from:</i>
__ 110A	__ 188   __ 140B	__ 180D	__ 110A           __ 134
__ 110B	__ M122   __ 150	__ 180E	__ 110B           __ 135
__ 112	__ 124   __ 160	__ 180F	__ 115B           __ 136
__ 115A	__ 126	__ M180G	__ 120A           __ 167
__ 115B	__ 127	__ 180Q	__ 120B           __ 170A
__ 115C	__ 128	__ 118	__ *132
__ 131			

\*Math 132 cannot be used if Physics 132 is taken

**Physics: Option II. (Interest in Experimental Physics) 16 courses**

Physics UD Core	Electives	180 labs	Math
<i>Upper Div Core—All Required</i>	<i>3 required</i>	<i>2 required &amp; 8 units of 199 research</i>	<i>1 course</i>
__ 105A	__ 114   __ 132	__ 180A	__ 115A or
__ 105B	__ 117   __ 140A	__ 180C	<u><i>1 course from:</i></u>
__ 110A	__ 188   __ 140B	__ 180D	__ 110A           __ 134
__ 110B	__ M122   __ 150	__ 180E	__ 110B           __ 135
__ 112	__ 124   __ 160	__ 180F	__ 115B           __ 136
__ 115A	__ 126	__ M180G	__ 120A           __ 167
__ 115B	__ 127	__ 180Q	__ 120B           __ 170A
__ 115C	__ 128	__ 118	__ *132
__ 131		__ 199**   __ 199**	

\*Math 132 cannot be used if Physics 132 is taken

\*\*The 8 units of 199 will be used for a single research project leading to a senior thesis

**Physics: Option III. (Interest in Theoretical Physics) 19 courses**

Physics UD Core	Electives	180 labs	Math
<i>Upper Div Core—All Required</i>	<i>3 required</i>	<i>2 required &amp; 8 units of 199 research</i>	<i>115A plus 2 courses required</i>
__ 105A	__ 114   __ 132	__ 180A	__ 115A or
__ 105B	__ 117   __ 140A	__ 180C	<u><i>2 courses from:</i></u>
__ 110A	__ 188   __ 140B	__ 180D	__ 110A           __ 134
__ 110B	__ M122   __ 150	__ 180E	__ 110B           __ 135
__ 112	__ 124   __ 160	__ 180F	__ 115B           __ 136
__ 115A	__ 126	__ M180G	__ 120A           __ 167
__ 115B	__ 127	__ 180Q	__ 120B           __ 170A
__ 115C	__ 128	__ 118	__ *132
__ 131		__ 199**   __ 199**	

\*Math 132 cannot be used if Physics 132 is taken

\*\*The 8 units of 199 will be used for a single research project leading to a senior thesis