B.S. Applied Physics: Acoustics

<table>
<thead>
<tr>
<th>Suggested semester:</th>
<th>Required</th>
<th>Prerequisite</th>
<th>Concurrent</th>
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<tbody>
<tr>
<td>Freshman 1</td>
<td></td>
<td>(Optional)</td>
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<td>Freshman 2</td>
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<td>Sophomore 3</td>
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<td>Junior 5</td>
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<td>Senior 7</td>
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Notes:
1. Math 112 (Calculus I) preparation is assumed in high school. If you studied differentiation and integration in high school, move on to Math 113.
2. If you want a more formal versus applied math preparation, and perhaps a math minor, take the math sequence on the right. It requires 1-2 more hours than the left track. Both tracks are good.
3. Senior Thesis is required; join research group as early as possible. Credit in Sr. year in 498R.
4. Physics 416, Writing in Physics, can replace Engl 316, and can help you write your thesis. Take it when your research is essentially complete.
5. Color code: blue = math & CS, orange = introductory sequence, purple = lab, yellow = careers, green = computational, red = upper level.

High school calc. or Math 112

MATH 113 Calculus II (4.0hr)

MATH 213+215 Linear Alg (2+1 hr)

MATH 314 Calculus many variables (3.0hr)

MATH 334 Diff. Equations (3.0hr)

MATH 302 Math for Eng. 1 (4.0hr)

MATH 213+215 Linear Alg (2+1 hr)

PHYS 121 Mechanics

PHYS 123 Waves, optics, thermo

PHYS 220 Elec & Mag

PHYS 222 Modern Phys

PHYS 225 Intro to Expt. Phys (2.0 hr) Take with 220 if possible

PHYS 204 Elec & Mag

PHYS 225 Intro to Expt. Phys (2.0 hr) Take with 220 if possible

PHYS 318 Math Phys Take 318 as soon as you have prereqs

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PHYS 416 Writing in Phys. Alternative: Engl 316

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PHYS 167 Conceptual Acoustics Recommended, not required

PHYS 560 Acoustical Measurements Recommended, not required

Applied Physics: Acoustics elective courses

There is flexibility for the 9 credit hours of electives. Meet with your departmental advisor to help you choose these 9 hours. It is recommended that these 9 credits be acoustics related. At least six hours must be 300-level or above; up to three hours can be 200-level.

Some recommended courses

PHYS 560 (F, Acoustical Measurement Methods)
PHYS 660 (W, Acoustic Systems)
PHYS 661 (W, Advanced Fluid Acoustics)
PHYS 662 (W, Sound Fields & Vibrating Structures)
Mech Eng 250, 312, 334, 362, 372, 412, 531, 535
Elec. Eng. 301, 380, 487
Com. D. 334, 421, 438
TMA 465

Technically one may take 442, 471, or 561 for an upper division waves course. However, 561 is the default choice since this is an acoustics major.

PHYS 167 is a good acoustics class to take but cannot count as part of your elective credits.