5A. Cognate Sciences Core (31-33 hours)  
Chemistry Placement Test: CHM1025  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHM 2045C</td>
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<tr>
<td>CHM 2046</td>
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<td>CHM 2210</td>
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<td>CHM 2211</td>
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<tr>
<td>PHY 2053C</td>
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<td>PHY 2054C</td>
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5B. Lab requirement - Two labs  
At least one of these labs must come from section A - Core.  
A - Core:  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PCB 3044L</td>
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<tr>
<td>PCB 4683L</td>
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</tbody>
</table>

B - Non-Core: designated with *  

6. 22 hours of restricted electives are required, with following stipulations:  
- Courses must be selected from the list below.  
- Include one course exclusively on animals (marked a) and one course exclusively on plants (marked p).  
- At least 10 of the 22 hours must be courses offered by the Department of Biology (designated with an *).  
- Independent Study/Directed Research: May include a maximum of 4 hours towards restricted electives. (Completed with Biology Faculty)  
- 5000 level courses may be taken by seniors with prior permission of course instructor. You will be charged graduate level tuition.

Required Electives (choose one of the following) (3-4 hours)  
- PCB 4723* Animal Physiology  
- ZOO 4513* Animal Behavior

Restricted Electives (choose from the following) (11-12 hours)  
- PCB 4723* Animal Physiology  
- ZOO 4513* Animal Behavior  
- ANT 3550* Primatology  
- ENY 4004C* General Entomology  
- PIZ 4234* Zoo & Aquarium Mgmt  
- ZOO 3454* Ichthyology  
- ZOO 3713C* Comp Vert Anat  
- ZOO 4272* Ornithology  
- ZOO 4205C* Invertebrate Biodiversity  
- ZOO 4310C* Vet Med  
- ZOO 4405C* Sea Turtle Internship  
- ZOO 4462C* Herpetology  
- ZOO 4480* Mammalogy  
- ZOO 4480L* Mammalogy Lab  
- ZOO 4603C* Embryology/Develop  
- ZOO 4756C* Comp Vert Histology  
- ZOO 4910L* Res Exp in Zoo Env  

Note: If all requirements are satisfied on the road map, your major is satisfied. Please consult with COSAS for a final graduation check on all university requirements.