Biology BA Degree Checklist (updated 3/20/17)

Please print your name: 
Email address: 

I. Introductory and Core Courses = 20 credits

<table>
<thead>
<tr>
<th>Introductory Courses</th>
<th>Semester &amp; Year Completed</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 121</td>
<td></td>
<td></td>
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<tr>
<td>Bio 123/124</td>
<td>Spring</td>
<td></td>
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<tr>
<td>(or by petition only, 4 credit upper division lab)</td>
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<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Semester &amp; Year Completed</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Bio 326</td>
<td>Spring</td>
<td></td>
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<tr>
<td>Bio 327</td>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>Bio 345</td>
<td>Fall</td>
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<tr>
<td>Bio 305</td>
<td>Spring</td>
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</tbody>
</table>

II. Upper Division Requirement = 12 credits

Students should select additional upper-division courses (numbered 300 or above) to complete at least 12 credits (the number of blanks provided below for courses is arbitrary, credits must sum to 12). These credits should include three credits of laboratory.

<table>
<thead>
<tr>
<th>Laboratory Requirements</th>
<th>Semester &amp; Year Completed</th>
<th>Grade</th>
<th># Credits*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 credit Lab*: Bio</td>
<td></td>
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<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester &amp; Year Completed</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio</td>
<td></td>
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<td>Bio</td>
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</table>

Sum of Credits:

*Note that Bio 409 General Microbiology is a 1-credit lab experience and will not satisfy the 3 credits required. Bio 409 can count toward the 3 credits of lab with other courses (e.g. Bio 460 Independent Research) and as a 4-credit course it counts toward the 12 credits of upper division, however it does not satisfy the lab requirement on its own.

III. GPA Requirement

A 2.0 cumulative GPA is required for all upper-division (300 level and above) courses in the major.

IV. Chemistry and Math Requirements = 11-13 Credits

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester &amp; Year Completed</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 106/107</td>
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<td></td>
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<tr>
<td>Chem 116/117</td>
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<td></td>
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</tbody>
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AND Either

| Math 285** Or Math 295** | /          |       |
| Or Chem 275/276          | /          |       |

**Note that the College of Arts & Sciences Liberal Arts Core Quantitative Skills requires two courses in sequence (MAT 285/286 or MAT 295/296)

V. Credit limits for certain courses

In any combination of Bio 360 (Biology Laboratory Assistant), BIO 419 (Thesis Seminar), BIO 460 (Research in Biology), BIO 470 or 490 (Independent Study), and BIO 495 or 499 (Biology Thesis), a maximum of four credit hours can be applied toward the BA degree credit hour requirement for any purpose.
Upper Division Biology Courses for the B.A. degree
L- denotes a laboratory course (# of credits counted as lab in parentheses).

Cell and Molecular Biology
300 – Dance, Exercise and Brain Function
300 – Research Methods for Life Scientists
316/317 L (3) - Anatomy and Phys. I&II*
355 - General Physiology
396/REL 359 – Stem Cells & Society
400 – Brain and Behavioral Plasticity
400 - Experimental Designs & Interpretations in Biol
400 - Food for Thought: Brain Bioenergetics
400 - Neurochemistry of Memory
400 – Nervous System Insult
400 – Seminar in Neurodegenerative Disease
400 – Principles of Toxicology
400 – Quantitative Methods for Life Scientists
400 – Rhythms of the Brain
400 – Sem: Epigenetics of Human Health & Disease
400 – Seminar in Cell Biology & the Cytoskeleton
407 – Advanced Neuroscience
409 L (1) – General Microbiology**
414 – Biology of Adaptive Behaviors (Bio 400)
416 – Biology of Aging (Bio 400)
421 – Capstone Seminar in Biotechnology
422 L – (3) Bioinformatics for Life Scientists
425 L – (3) Cell and Developmental Biol. Lab
435 L – (3) Genetics lab
437 – Seminar in Develop. Neuro. (Bio 400)
441 – Seminar in Infectious Diseases (Bio 300)
442 – Seminar in Model Organism Genetics (Bio 400)
443 – Seminar in Epigenetics (Bio 400)
444 – Seminar in Neurotoxicology (Bio 400)
447 – Basic Immunology
457 – Principles of Human Toxicology (Bio 400)
459 – Plants & People (Bio 300)
462 – Molecular Genetics
463 L – (3) Molecular Biotechnology*
464 L – (3) Applied Biotechnology*
465 L – (3) Molecular Biology Lab
469 – Countering Weapons Mass of Destruction
472 L – (3) Advanced Light Microscopy (Bio 400)
475 L – (4) Biochemistry lab
476 – Cold Cases
496 – Neuroscience and Society (Bio 400)
501 – Biology of Cancer
503 – Developmental Biology
565 – Cell Physiology
BCM 475 – Biochem I
BCM 476 – Biochem II
BIO 575/576- Biochem I & II (previous numbers)

Ecology and Evolutionary Biology
310 – Evolution, Religion and Society
312/313 – Marine Ecology of Spain
400 – Biology of Marine Mammals
400 – Biomimicry
400 – Comparing Sperm and Pollen Evolution
400 - Evolutionary Genetics of Complex Traits
400 – Global Change Biology
400 L – (3) Global Change Ecology Laboratory
400 – Isotopic Approaches in Global Change Eco
400 – Quantitative Methods for Life Scientists
400 – Seminar in Molecular Ecology
400 – Seminar in Disturbance Ecology
400 – Seminar in Ecosystem Science
400 – Sexual Selection
400 – Sexual Selection and Mating Strategies
400 – Species Interactions and Biodiversity
400 – Topics in Evolution
405 L – (4) Introduction to Field Biology (lab)
411 – Evolutionary Mechanisms (Bio 400)
415 – Conservation Biology
417 L- (3) Animal Behavior & Evolutionary Bio Lab
428 – Capstone Seminar - Environmental Science
439 – Seminar in Ecosystem Ecology (Bio 400)
448 – Evolutionary Medicine
450 – Seminar in Evolutionary Genetics (Bio 400)
451 – Ecology
453 L – (2) Ecology lab***
455 – Seminar in Human Disease Genomics (Bio 400)
458 – Seminar in Animal Communication (Bio 400)

** Because Bio 409 is a 1-credit lab experience, it cannot be used to satisfy the lab requirement for the BA degree in Biology.
***By petition this course can count for the laboratory requirement for the BA degree.