

Department of Biology Graduation Checklist

LD= _____ Student: _____ E-mail _____
 UD= _____ Last First
 Advisor: _____

BACHELOR OF SCIENCE IN BIOLOGY: CONCENTRATION IN CELL AND MOLECULAR

| Lower Division Requirements (35-36 units) | | <i>Units</i> | <i>✓</i> | <i>Equiv. Form if any (✓)</i> |
|--|---|--------------|----------|-------------------------------|
| BIOL 230 | Introductory Biology I | 5 | | |
| BIOL 240 | Introductory Biology II | 5 | | |
| CHEM 115 | General Chemistry I: Essential Concepts of Chemistry | 5 | | |
| CHEM 215/216 | General Chemistry II: Quant. Appl. of Chem. Conc./Lab (3/2) | 5 | | |
| MATH 226 | Calculus I | 4 | | |

One course selected from the following (3-4):

| | | | | |
|---|--|--------------|--|--|
| MATH 124 | Elementary Statistics (3) | | | |
| MATH 227 | Calculus II (4) | | | |
| MATH 228 | Calculus III (4) | | | |
| CSC 210 | Introduction to Computer Programming (3) | | | |
| BIOL 458 | Biometry (4) | | | |
| PHYS 111/112 | General Physics I/Laboratory (3/1) | 4 | | |
| PHYS 121/122 | General Physics II/Laboratory (3/1) | 4 | | |
| Total lower division requirements..... | | 35-36 | | |

Upper Division Requirements (36 units)

| | | | | |
|----------|---|---|--|--|
| BIOL 350 | Cell Biology | 3 | | |
| BIOL 351 | Experiments in Cell and Molecular Biology | 4 | | |
| BIOL 355 | Genetics | 3 | | |
| BIOL 357 | Molecular Genetics | 3 | | |
| BIOL 382 | Developmental Biology | 3 | | |
| CHEM 333 | Organic Chemistry I | 3 | | |
| CHEM 335 | Organic Chemistry II | 3 | | |
| CHEM 340 | Biochemistry I | 3 | | |
| CHEM 341 | Biochemistry II | 3 | | |

Electives to include one course from each group below. Include one lab course (8):

Group A:

| | | | | |
|--------------|--|--|--|--|
| BIOL 380 | Comparative Embryology (3) | | | |
| BIOL 401/402 | General Microbiology and Laboratory (3/2) | | | |
| BIOL 450/451 | Biology of the Protozoa and Laboratory (3/2) | | | |
| BIOL 525/526 | Plant Physiology and Laboratory (3/2) | | | |
| BIOL 612/613 | Human Physiology and Laboratory (3/2) | | | |
| BIOL 614 | Vertebrate Histology (4) | | | |
| BIOL 630/631 | Animal Physiology and Laboratory (3/2) | | | |
| BIOL 640 | Cellular Neuroscience (3) | | | |

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Group B:

| | | | | |
|--------------------------------|---|--|--|--|
| BIOL 356 | Honors Genetics (2) | | | |
| BIOL 358 | Experimental Techniques in Molecular Biology (4) | | | |
| BIOL 361 | Human Genetics (3) | | | |
| BIOL 391 | Microscopy and Photomicrography (2) | | | |
| BIOL 420/421 | General Virology and Laboratory (3/2) | | | |
| BIOL 435 | Immunology (3) | | | |
| BIOL 442/443 | Microbial Physiology and Laboratory (3/2) | | | |
| BIOL 524 | Plant Molecular Biology (3) | | | |
| BIOL 620 | Endocrinology (3) | | | |
| CHEM 300 <i>or</i> CHEM 343 | General Physical Chemistry I (3) <i>or</i> Biochemistry I Laboratory (3) | | | |
| CHEM 351 | Physical Chemistry I | | | |

3 to 4 units of credit in graduate courses numbered BIOL 725-744, which accept qualified seniors, may be substituted with the advisor's approval.

| <i>Course Num.</i> | <i>Course Title</i> | <i>Units</i> |
|--------------------|---------------------|--------------|
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|---|-----------------|------------------|
| | Required | Completed |
| Total upper division requirements: | 36 | _____ |
| Total for major | 71 | _____ |