

Curriculum Map Overview, Biology Department

Color codes:

Core courses: **black**

Upper division group electives. Course listed in more than one category are listed more than once.

Plant Biology, **Animal Biology**, **Cell & Molecular Biology**, **Structure & Function**, & **Ecology & Evolution**

Objectives	Introduced in	Practiced in	Reinforced in
Knowledge Skills			
1. become familiar with major content areas, including animal biology, plant biology, cell & molecular biology, structure & function, and ecology and evolution	BIO 131-132 OR BIO 105	BIO 208, 212, & 220; BIO 200- 201 BIO 300 & 326 BIO 305, 310, 315, 316, 323, 341 & 406 BIO 312N & 313 BIO 305, 312N, 314 BIO 301, 315, 320, 414N	BIO 200-201; 402, 415N BIO 313, 330, 406, 409 & 423 BIO 340, 400, 405, 411, 412, 421 BIO 315, 322, 401, 414N
Library Skills			
2. design/conduct independent Library study, including evaluating web-based resources and using databases to retrieve information	BIO 131- 132	BIO 208, 212, & 220; BIO 200- 201 BIO 305 & 310 BIO 305, 340 BIO 301, 320, 322	BIO 402, 415N BIO 313 & 409 BIO 412 BIO 301, 401, 414N
Lab/field/research skills			
3. quantitative skills, including graphing, tabular data, and use & interpretation of statistical tests	BIO 131- 132 BIO 323 & 341	BIO 208, 212 & 220; BIO 200- 201 BIO 305 & 310 BIO 323 & 341 BIO 312N BIO 312N, 340 BIO 301, 320, 322	BIO 402, 415N BIO 313, 330, 409 & 423 BIO 405,411, 412, 421 BIO 401, 414N
4. lab or field notebook	BIO 131- 132	BIO 212 BIO 310 & 315 BIO 315 BIO 312N BIO 312N	BIO 313, 330, 409 & 423 BIO 421

5. design/conduct lab or field investigation	BIO 131	BIO 212; BIO 200-201 BIO 326 BIO 323 BIO 312N BIO 312N BIO 320, 322	BIO 406 BIO 406 & 423 BIO 421
6. various field techniques, including specimen preparation & documentation and sampling methods	BIO 131 BIO 315, 320, 322	BIO 300 & 326 BIO 310, 315 & 323 BIO 315, 320, 322	
7. animal dissection skills	BIO 131	BIO 200-201 BIO 305, 310 & 323 BIO 312N BIO 305, 312N, 400, 421 BIO 315	
8. lab skills, including use of microscope, spectrophotometer, pipetting, pH meter, making solutions, aseptic technique, metric conversions, controls, replicates	BIO 131-132 or BIO 105	BIO 212; BIO 200-201 BIO 300 & 326 BIO 305, 310, 323 BIO 312N BIO 305, 312N, 314, 400 BIO 315, 320, 322	BIO 406 BIO 313, 330, 409 & 423 BIO 405, 421
9. computer applications to use public data	BIO 131 - 132	BIO 301	BIO 415N BIO 313, 409 & 423
10. work effectively in groups	BIO 131- 132	BIO 208, 212 & 220; BIO 200-201 BIO 300 & 326 BIO 305 & 310 BIO 312N, 330 BIO 305, 312N, 340, 400 BIO 320, 322	BIO 402, 415N BIO 313, 406, 409 & 423 BIO 405, 411, 412, 421 BIO 401

11. oral and written scientific reporting, including multimedia	BIO 131- 132 BIO 301	BIO 208, 212 & 220; BIO 200-201 BIO 326 BIO 310 & 406 BIO 312N BIO 305, 312N, 340 BIO 301, 320, 322, 414N	BIO 402, 415N BIO 305, 315, & 406 BIO 313, 409 & 423 BIO 405, 411, 412, 421 BIO 401, 414N
12. evaluate oral/written work of others	BIO 208, 220	BIO 200-201 BIO 402, 415N BIO 305 BIO 305, 340	BIO 402, 415N BIO 315 BIO 411