

WRITING IN BIOLOGY 2004

| Course # | Lab notebook | Lab report | Proposal or outline | Research paper | multiple drafts | essay exams | essay or opinion paper | informal writing | poster | oral report with visuals | Case study |
|----------|--------------|------------|---------------------|----------------|-----------------|-------------|------------------------|------------------|--------|--------------------------|------------|
| 101 | x | x | | | | x | | | | | |
| 111 | x | x | | x | | x | x | x | | | |
| 112 | x | x | x | | | x | | | x | x | |
| 106 | | | | | x | x | | x | x | | |
| 115 | x | x | | x | | x | | x | x | x | |
| 121 | | | | x | | x | x | | | x | |
| 201 | | | | x | | x | | | | | |
| 205 | | | | x | x | x | x | | | | |
| 207 | | | | x | | | | | x | x | |
| 211 | x | x | | | | | | | | | |
| 212 | | | | | | | | | | | |
| 215 | x | x | x | x | x | | | | | | |
| 219 | x | x | x | | x | x | | | | | |
| 221 | | x | x | x | | x | x | | x | | x |
| 231 | x | x | | x | | x | | | | | |
| 244 | | x | | x | | x | | x | | x | x |
| 252 | | | | x | | x | x | x | | x | x |
| 254 | x | x | | | x | x | | | | | |
| 255 | x | | x | x | x | x | | | | | |
| 261/361 | | x | | x | | | | | | | |
| 262 | x | x | | x | x | x | | | | | |
| 303 | | x | x | x | x | x | | x | | | |
| 305 | x | x | | | x | x | | | | | x |
| 307 | x | x | x | x | x | x | | | | | |
| 316 | x | x | | | | | | | | | |
| 317 | | | | x | | | | | | | |
| 324 | x | x | x | x | x | x | | | | | |
| 331 | x | x | x | x | x | x | | | | | |
| 347 | | | | x | | x | | | | | |
| 348 | | x | | | | x | | | | x | x |
| 364 | x | x | | x | | x | | | | | |
| 375 | x | x | x | | x | x | | | | | |
| 399 | | | | | | | | | | | |
| 499 | | x | x | | x | | | | | | |

Biology Department Writing Plan

The Biology department has conducted a review of course offerings with particular emphasis on the types and amount of writing that is typical of each course. In appendix I, I have attached a summary of our writing program outlining the occurrence of the following types of writing in each course: lab notebook, lab report, proposal or outline, research paper, multiple drafts, essay exams, essay or opinion paper, informal writing, posters, oral report with written handouts or outlines. All types of writing are represented in our curriculum.

The most important courses for setting standards for writing in Biology are Bio 111 and Bio 112, required courses in the Biology major. Students are given extensive instruction in maintaining lab notebooks(Appendix II) and writing lab reports. Written guidelines for lab reports (Appendix III) are provided and an excellent writing manual is made available to students (Jan Pechenik, *A Short Guide to Writing about Biology*, 4th ed. Longman Press). In addition to science content, a component of the lab report grade is based on writing. In introductory courses that do not have a laboratory component, research proposals are emphasized, multiple drafts of writing projects are assigned, posters are used to summarize research and students are asked to communicate their understanding of the material using different types of writing. All courses have some essays on exams.

In 200 level Biology courses, we build upon foundations laid in Bio 111 and Bio 112. We have noticed a marked improvement in writing in our 200 level courses since the initiation of writing instruction in Bio 111 and 112. Instruction in maintaining lab notebooks and writing lab reports continues. More emphasis is placed on writing papers, research proposals, case studies and using multiple drafts to complete assignments. Particular attention is paid to formatting graphs and tables, legends, and citing sources.

In 300 level courses, multiple drafts are used in over half our courses. All lab courses require detailed lab or field notebooks and much of the laboratory work is summarized in lab reports. Our 300 level courses feature fewer short and informal writing assignments but emphasize research proposals, research papers and essays on exams. Our students are gaining expertise in all the writing formats utilized by practicing scientists.

Students that enroll in 400 and 500 level courses and capstone courses often write research proposals to obtain funding from intramural and extramural sources. They must maintain excellent lab or field notebooks and all are expected to write a final report using a multiple draft format.

Other types of writing are included in certain courses; web pages, multiple author papers, guidelines for using equipment, protocols for techniques, peer review, writing for general audiences, etc. . Process writing is often important for these projects. In many cases, our students must learn to integrate data and text, visual information with written information.

Many of our 300 level courses were designated as “writing-intensive”. Even though this designation no longer applies, those courses continue to be taught using the “writing-intensive” criteria. We expect to periodically review our curriculum in relationship to writing but do not envision a need to adjust our current program.