

Biol 400 – Spring 2019

Instructor: Dr. Diane Caporale
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D2L: Biol 400 Sect 1
Office Hours: Wed & Fri: 10-11am, or appt

Class Meetings:

Fridays 12-1pm, CBB 330

Course Objectives:

This course is designed to give guidance in scientific writing for students completing their independent study project. Requirements include the beginning or completion of a research paper, depending on the progress of their research, and a presentation of their research experience.

Learning Outcomes: Upon completing this requirement, students will be able to:

- 1) Apply discipline-specific standards of oral and written communication to compose an articulate, grammatically correct, and organized presentation/piece of writing with properly documented and supported ideas, evidence, and information suitable to the topic, purpose, and audience;
- 2) Critique their own and others' writing/oral presentations to provide effective and useful feedback to improve their communication.

Grading Scale:

| | | | | | |
|------|--------------|------|--------------|------|--------------|
| A = | 93 – 100 pt | B- = | 80 – 82.5 pt | D+ = | 67 – 69.5 pt |
| A- = | 90 – 92.5 pt | C+ = | 77 – 79.5 pt | D = | 60 – 66.5 pt |
| B+ = | 87 – 89.5 pt | C = | 73 – 76.5 pt | F = | < 60 |
| B = | 83 – 86.5 pt | C- = | 70 – 72.5 pt | | |

Attendance Policy:

You are required to work at least 3 hours/wk in lab for Biol 400 and at least 3 hr/wk more if you are registered for Biol 399. Students who must miss a writing assignment deadline due to religious observances or participation in university sanctioned events should notify me within the first 3 weeks of the beginning of class, so makeup arrangements can be made. The only other valid excuses for missing a deadline are: death in the family, violent illness, or accident. In such cases: (1) you must provide evidence of some kind (eg. note from health center), **and** (2) you must reschedule **within 24 hrs** after the date of the deadline.

Schedule:

| Week | Assignments for Alencar, Hagedorn, Tondin, Smith | Assignments for Weisman | % Points |
|-------------|--|--|-----------------|
| 1 | Introduction to lab group | | 1 |
| 2 | Each grow up 2 wildtype and 2 variant plasmids | PCR & gel electrophoresis gene 1 | 1 |
| 3 | Plasmid isolation and transfection | Sequence gene 1, PCR & gel electrophoresis gene 2 | 1 |
| 4 | RNA isolation, rtPCR and sequencing | Sequence gene 2, PCR & gel electrophoresis gene 3 | 1 |
| 5 | Sequence analysis: compare wildtypes to variants | Sequence gene 3, PCR & gel electrophoresis gene 4 | 1 |
| 6 | Perform replicates: Grow up 2 wildtype and 2 variant plasmids per person | Sequence gene 4, PCR & gel electrophoresis gene 5 | 1 |
| 7 | Plasmid isolation and transfection | Sequence gene 5, PCR & gel electrophoresis gene 6 | 1 |
| 8 | RNA isolation, rtPCR and sequencing | Sequence gene 6, PCR & gel electrophoresis those that did not work 1 st time | 1 |
| 9 | Sequence analysis: compare wildtypes to variants and with first round of experiments | Sequence those that did not work 1 st time | 1 |
| 10 | First draft of poster or PPT due (excluding results/discussion section) Critique each other's 1 st draft | | 10 |
| 11 | Results/discussion due | | 20 |
| 12 | Final draft of poster or PPT due – including results/discussion section | | 40 |
| 13 | Oral Presentation (PPT or Poster) to lab group | | 10 |
| 14 | Presentation at CL&S Undergraduate Research Symposium | | 10 |
| 15 | Clean up lab bench | | 1 |