**Writing Science Graduate Seminar**

Autumn Semester 2018 (2nd seven weeks)

(EEOB 8896.04-290; Call # 18469)

**Instructor:**

Dr. Ian Hamilton, Department of EEOB, Department of Mathematics, 390 Aronoff Laboratory, 318 W 12th Ave; Email: [hamilton.598@osu.edu](mailto:hamilton.598@osu.edu)

**Meeting Time & Location:**

Mondays 1:00-3:00, Oct. 15 – Dec. 3

Location: 104 Aronoff Laboratory

**Course Overview:**

This graduate-level course is the second of a two-part set that will focus on improving the scientific writing ability of students. This course will focus specifically on writing scientific proposals. During the course, students will learn how to approach the proposal writing process, practice writing, and learn to effectively critique their own writing and that of others.

**Course Goals & Expected Learning Outcomes:**

1. Students will understand how to craft compelling scientific proposals.
   1. Students will be able to explain the elements of well-designed scientific proposals.
   2. Students will be able to identify the strengths and weakness of scientific proposals.
   3. Students will be able to decide what content to include in their writing.
   4. Students will improve in their ability to write scientific proposals.
2. Students will grasp the mechanics of technical science writing.
   1. Students will be able effectively organize their writing in scientific proposals.
   2. Students will be able to identify problems in the mechanics of writing.
   3. Students will be able to craft text that is understandable to both experts and non-experts.
3. Students will understand the value of peer-reviews in technical science writing.
   1. Students will be able to properly articulate to a peer how writing can be improved to make it more compelling and effective.
   2. Students will be able to use reviewer feedback to improve their own writing.
   3. Students will learn how to conduct and structure a formal peer review.

**Required Text:**

Russell, S.W., and D.C. Morrison. 2017. The Grant Application Writer’s Workbook: National Science Foundation – FastLane Version. (<http://www.grantcentral.com/workbooks/national-science-foundation/>).

**In-Class and Out-of-Class Assignments:**

I am expecting students to read, write, and review proposals outside of class each week, and submit their work on Carmen. While I recognize that you are all busy, DO NOT COME TO CLASS UNPREPARED. Taking the time to do the required homework will greatly improve your writing over just reading alone, help your fellow students, and hone your abilities as a reviewer.

**Attendance:**

More than one *unexcused* absence will result in an unsatisfactory grade. If you will need to miss a class, please let me know ASAP. This information will help me plan schedule discussion leaders and organize peer groups. I also can then work with you to devise a way to make up the missed work.

**Materials Posted on Carmen:**

Materials for this course will be posted on the EEOB 8896 Carmen site. At this site, you will find this syllabus, as well as all assignments and required readings. I also will post supplemental materials and handouts at this site, and expect you to upload our writing and peer reviews to this site on a weekly basis. Please check the Carmen website frequently.

*Also, be sure to check your official OSU email daily; all correspondence will be to this OSU account.*  I will not respond to non OSU emails, owing to OSU policy rules.

**General Course Format:**

We will meet once per week for 2 hours. During this time, we will undertake three primary activities:

1. Each week a pair of students will introduce and discuss with the class an aspect of the writing process, using Russell and Morrison’s text as a guide. This discussion each week should occur in a small-group setting at the outset (3-4 groups with 1 student “leader” per group), followed by a whole-class discussion.
2. Working in groups of three, students will review each other’s writing. Students will review the writing of **two** students prior to class and use class time to communicate their thoughts to their peers. I will help form the groups to ensure they consist of a mixture of experienced and inexperienced writers, or split by the type of proposal being written (e.g., NSF GRFP vs. traditional NSF). After this small-group discussion, we will come back as a large group and share any interesting or important insights.

All students are expected to write each week and *submit their writing* for peer review on the course’s Carmen site*no later than 8 AM on the Friday before class.* This will allow the peer reviewers Friday and the weekend to review the writing; a *critique* of the work (i.e., edited electronic version w/ comments) should be posted the course’s Carmen site *before the start of class on that Monday*. My suggestion is that no more than 30 minutes should be spent reviewing one person’s writing (i.e., both peer reviews should take less than an hour, in total).

On occasion, I am likely to provide additional materials (e.g., writing, editable text) to the student groups, or co-opt some of the class time, to facilitate the learning process.

**Anticipated Class Timeline:**

The expected format and timeline for a typical class (weeks 2-7) is below. I will modify this as needed.

1. Discuss writing topic (~55 min)
   1. Topic leaders facilitate small-group discussions (15 min)
   2. Topic leaders facilitate a whole-class follow-up discussion (40 min)
2. Break (5 min)
3. Discuss Peer Reviews (~60 min)
   1. Students discuss their peer reviews in small groups (45 min, 15 min per person)
   2. Large-group discussion of peer reviews (~15 min)

**Grading:**

This a pass-fail course that I want you all to pass. The surest way to make this happen is to attend class and put effort into the homework assignments (readings, writing, and reviews). As a means to motivate you to do your homework—because it will benefit you in the long-run—I created point-based grading system. I do not plan to grade your work; however, I will look at your effort, to ensure that you are put it in. To pass the class, you must complete a final proposal and the final peer review and accumulate 280 of the 380 points. The breakdown of points is as follows:

|  |  |  |
| --- | --- | --- |
| **Week** | **#** | **Total Points** |
| Lead Discussion Topic (1 week) | 1 | 25 |
| Weekly (Focused) Proposal Writing | 5 | 75 |
| Final (Full) Proposal | 1 | 50 |
| Weekly (Focused) Peer Reviews | 5 | 75 |
| Final (Full) Peer Review | 1 | 50 |
| Class Attendance/Participation | 7 | 105 |
| **Total Points** |  | **380** |

**Academic Misconduct**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

**Disability Services**

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

**Mental Health**

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student’s ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life’s Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614­-292-­5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614­-292-­5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-­800­-273-TALK or at suicidepreventionlifeline.org.

**Sexual Misconduct**

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at [titleix@osu.edu](mailto:titleix@osu.edu).

**Diversity**

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

**TENTATIVE CLASS SCHEDULE:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week** | **Date** | **Topics & Activities** | **Reading/Writing**  **(Submit on Carmen before class)** | **Leader(s)** |
| 1 | Oct 15 | Course Introduction   * Student introductions/Proposal Type * Syllabus/scheduling/Carmen * Mock peer review decision   Topic 1: NSF Funding Process & Writing for reviewers | R & M: Chap. 1-3 & 6 | Ian Hamilton |
| 2 | Oct 22 | Topic 2: Rationale & Objectives (R&O)  Peer Review Discussions: Rationale & Objectives sections | R & M: Chap. 7-8  Brodnik\_GRFP\_Res (not IM or BI)  Burgior\_GRFP\_Res (not IM or BI)  Ludsin\_OSG\_Prop (R&O only)  Martin\_NSF\_Prop (pp. 2-3 only)  **Proposal text (R&O sections)**  **Peer review (R&O sections)** | To be determined  Everyone Everyone |
| 3 | Oct 29 | Topic 3: Expected Significance   * Critique/edit examples   Peer Review Discussions: Expected Significance section | R & M: Chap. 9  Friedland & Folt 2009 (Chap. 4)  Brodnik\_GRFP\_Res (IM)  Burgior\_GRFP\_Res (IM)  Ludsin\_OSG\_Prop (Significance)  Martin\_NSF\_Prop (IM, pp. 3-4)  **Proposal text (Signif. section)**  **Peer review (Signif. section)** | To be determined  Everyone Everyone |
| 4 | Nov 5 | Topic 4: Research Plan, Long-term Goals, Background, Preliminary & Related Work sections  Peer Review Discussions: Research Plan, Long-term Goals, Background, Preliminary & Related Work section | R & M: Chap. 11-14  Brodnik\_GRFP\_Res (Approach)  Burgior\_GRFP\_Res (Approach)  *Skim* Denver\_Prop (pp. 5-13)  *Skim* Martin\_NSF\_Prop (pp. 5-17)  **Proposal text (Res. Plan, > 1 aim)**  **Peer review (Res. Plan section)** | To be determined  Everyone Everyone |
| 5 | Nov 12 | **No class (Veterans Day)** |  |  |
| 6 | Nov 19 | Topic 5: Broader Impacts (BI)  Peer Review Discussions: Broader impacts section | R & M: Chap. 15  Skrip (2015)  Brodnik\_GRFP\_Res (BI only)  Burgior\_GRFP\_Res BI only)  Denver\_Prop (BI, pp. 14-15)  Martin\_NSF\_Prop (BI, pp. 17-19)  **Proposal text (BI section)**  **Peer review (BI section)** | To be determined  Everyone Everyone |
| 7 | Nov 26 | Topic 6: Title & Project Summary   * Critique/edit examples   Peer Review Discussions: Title & Project Summary | R & M: Chap. 22-23  Denver\_Prop (Summary, pp. 1-2)  Martin\_NSF\_Prop (Summary; p. 1)  **Proposal text (Project Summary)**  **Peer review (Project Summary)** | To be determined  Everyone Everyone |
| 8 | Dec 3 | Topic 7: Review Process   * Mock Review Panel | NSF Panel Process  Assigned proposals (TBD)  **Submit final proposal**  **(on Carmen)** | Ian Hamilton  Everyone |
|  | Dec 10 | **No Class Meeting** | **Peer review (like *ad hoc* reviewer)** | Everyone |