

Bio 370 Seminar

2014 Fall

Class schedule and location

Mondays, Wednesdays, and Fridays, 8:55 am to 9:45 am

Collier Hall of Science, Room 200

Professor

Karen Buchkovich, Ph.D.

Visiting Professor, Dept. of Biological Sciences

Email: buchkovichk@moravian.edu

Office: Collier Hall of Science, Room 323

Office Hours: MWF after class 9:45-10:15 AM (drop in)

MWF 5:00-6:00 PM (by appointment)

F 12:35-4:15 PM (drop in)

Texts

Two books are required for this course, and should be available in the bookstore:

1. *Writing Papers in the Biological Sciences* (5th edition) by Victoria E. McMillan
2. *Reading Primary Literature* (2007) by Christopher M. Gillen.

You will also want to have a good style book, such as *The Bedford Handbook* (whatever edition you have from WRIT100 is fine).

Course Objectives

Upon successful completion of this course, students will be able to:

- select and research specific topics within the fields of cancer biology research (molecular, cellular, biochemical), clinical oncology, drug discovery and development, and other areas of biology using both primary and secondary literature sources
- concisely describe a body of research in abstract form
- construct written outlines and drafts based on feedback from peers and the professor
- write a research review paper in a proper scientific format
- write a research proposal in a proper scientific format
- give concise, well-organized oral presentations to peers
- clearly discuss and answer questions from their peers about their research findings
- offer valuable, constructive criticism on peers' written and oral work

Course Components

P a p e r s

There will be two major writing assignments in this course:

1. **Review Paper.** We will review the structure of a scientific review article, but in short they synthesize a number of papers in a particular area into a coherent and fluid whole. The author may choose to point out what is NOT KNOWN about the topic. This is often the most interesting and exciting part of science! The author may add his or her

own speculations about future discoveries, but this is not a requirement.

Please include a *minimum* of **5 primary sources and 1-2 secondary sources** used for this paper.

2. **Research Proposal.** Scientific research is expensive, so funding agencies need to be convinced to fund your research. Knowing how to write a solid, interesting, effective research proposal is a critical skill in modern science. We'll look at this kind of writing later in the semester.

- The two papers must be on separate topics, unless you have double the minimum number of references. Each of your oral presentations should focus on the same topic as your cognate paper (Review or Research).
- I expect a certain minimum length for each draft:

Draft	Minimum length
First	2000 words
Second	2400 words
Third	2700 words
Final	3000 words

Writing Center: Do not forget to schedule time with the staff at the Writing Center — getting a real outsider's perspective, by which I mean a non-scientist, or one who isn't very familiar with your subject, can be an invaluable asset to your writing.

Peer editing groups for the first paper:

- TBD (~3 per group)

Peer editing groups for the second paper:

- TBD

Each draft you hand in **must** clearly indicate what it is: Who wrote it, when you wrote it, which assignment it is, which draft it is. Be sure to also indicate the word count (see below). All drafts must be typed or word-processed, unless you speak to me first.

In accordance with College policy, note that it is your responsibility to keep **all** materials (notes, jottings, index cards, intermediate drafts, etc.) for **all** assignments in this course until you receive a final grade. It is especially important that those of you writing with a word-processor be sure to save intermediate drafts ***as separate documents!***

Oral Presentations

Each of you will give one oral presentation during the semester. You will also be responsible for evaluating the presentations of your classmates. We'll discuss and develop criteria for evaluating these presentations late in September, but here are a few ground rules:

- Your presentation should take 15 minutes (+/- 2 minutes), to allow time for questions.
- You must provide me an abstract (200 words or more) **one week before** your presentation; I will post this abstract on the website.
- For at least one presentation you must use a software presentation program such as PowerPoint.
- In each presentation you must present experimental results—from one of the papers, of course — in reasonable detail.

Participation

Beyond your written and oral presentations, I also expect you to participate in editing your classmates' written drafts and evaluating their oral presentations. When editing, keep in mind the purpose and audience of the piece. We'll discuss our goals and criteria further in class, but as is so often the case, the golden rule is a pretty good guide.

Course Policies

Attendance

I expect that you will make every effort to attend each class session. Your absence may impinge on the progress of your classmates, particularly in your peer editing group. I may grant an excused absence for serious problems *if prior notification is given (typically by email.)* Over the course of the semester you may miss one draft-editing session and two presentations without penalty, provided you have an excused absence.

Grading

Literature Review	200 points
Research Proposal	200 points
Article summary	100 points
Abstract exercise	50 points
Peer editing groups	200 points
Presentation	200 points

Presentation evaluations	150 points
Class participation	100 points
TOTAL	1200 points

Grading scale:

numeric grade	letter grade
93.3 - 100	A
90.0 - 93.2	A-
86.7 - 89.9	B+
83.3 - 86.6	B
80.0 - 83.2	B-
76.7 - 79.9	C+
73.3 - 76.6	C
70.0 - 73.2	C-
66.7 - 69.9	D+
63.3 - 66.6	D
60.0 - 63.2	D-

Just to review, this is what the Student Handbook has to say about grades:

A and A-

These grades are given for achievement of the highest caliber. They reflect independent work, original thinking, and the ability to acquire and effectively use knowledge.

B+, B, and B-

These grades are given for higher than average achievement. Evidence of independent work and original thinking is expected.

C+, C, and C-

These grades are given when the student has devoted a reasonable amount of time, effort, and attention to the work of the course and has satisfied the following criteria: familiarity with the content of the course, familiarity with the methods of study of the course, and active participation in the work of the class.

D+, D, and D-

These grades are given for unsatisfactory work, below the standard expected by the College. They indicate work which in one or more important aspects falls below the average expected of students for graduation. The work is, however, sufficient to be credited for graduation, if balanced by superior work in other courses.

L a t e A s s i g n m e n t s

Late assignments will be penalized 10% of the full value for each day (or fraction thereof) that they are late. This also applies to assignments that do not meet the

minimum standards of length, organization, and legibility: do not expect two hand-scrawled pages to count as a draft.

Reading

It is important that you do the reading assigned for any given session (see the [Syllabus](#)) in advance.

Studying Together

Working together is a Good Thing. I encourage you to talk with friends in and out of this course about your review and research topics, what you are thinking, the effectiveness of your writing, whether the approach you have chosen makes sense, etc.. There is no aspect of this course that cannot be improved by working with other students.

Accommodations

Students who wish to request accommodations in this class for a disability must contact Ms. Elaine Mara, assistant director of academic support services for academic and disability support, at the lower level of Monocacy Hall, or by calling [610-861-1401](tel:610-861-1401). Accommodations cannot be provided until authorization is received from the Academic Support Center. If the Writing Center is inaccessible to you and you would like assistance, please call the number above.

Academic Honesty

- Students are responsible for adhering to the College's policy on academic honesty; Moravian College expects its students to perform their academic work honestly and fairly. A Moravian student, moreover, should neither hinder nor unfairly assist the efforts of other students to complete their work successfully. This policy of academic integrity is the foundation on which learning at Moravian is built. Students will be held to the highest standards as specified by the Moravian College Honor Code. Violations of this code will be handled in the most severe manner allowed by college policy. Please read the **Academic Honesty Policy** that is included in the student handbook **and** the **Guidelines for Honesty** included in this syllabus (below). If you have any questions about plagiarism or other forms of academic dishonesty, please ask.

- All work that you submit or present as part of course assignments or requirements must be **your original work**. This includes any work presented, be it in written, oral, or electronic form or in any other technical or artistic medium. When you use the specific thoughts, ideas, writings, or expressions of another person, you must accompany each instance of use with some form of attribution to the source. Direct quotes from any source (including the Internet) must be placed in quotation marks (or otherwise marked appropriately) and accompanied by proper citation, following the preferred bibliographic conventions of your department or instructor. Student ignorance of bibliographic convention and citation procedures is not a valid excuse for having committed plagiarism.

- Minimize the number of quotes that you use. Your research paper should be a **synthesis** of information from the literature and an **original analysis** of the topic you have chosen. It is not simply a compilation of the thoughts and work of others.

- You may not use writing or research that is obtained from a "paper service" or that is purchased from any person or entity, unless you fully disclose such activity to the instructor and are given express permission.

- You may not use writing or research obtained from any other student previously or currently enrolled at Moravian or elsewhere or from the files of any student organization, such as fraternity or sorority files, unless you are expressly permitted to do so by the instructor.

- Cheating or plagiarism will not be tolerated and may result in failure of the course. A major form of academic dishonesty is plagiarism, which we

define as the use, whether deliberate or not, of any outside source without proper acknowledgment; an "outside source" is defined as any work (published or unpublished), composed, written, or created by any person other than the student who submitted the work (adapted from Napolitano vs. Princeton). Take care to cite the sources of ideas of others correctly (in other words, to give credit where credit is due). Several assignments in this class will involve the use of internet resources, and it is my experience that students often do not realize that copyright violations and plagiarism policies still apply when using materials from these resources.

- At Moravian, if an instructor suspects that plagiarism has occurred, the student will be asked to show the notes and drafts contributing to the final version of a paper or assignment. The instructor also has the right to review any books or periodicals that were used. The grade for the paper will be suspended until these materials have been reviewed. An instructor who suspects a student of violating the policy on academic honesty with regard to an assignment will consult with another faculty member in the department using a blind copy of the work in question, to verify the violation. If the charge is verified, the instructor will, at a minimum, assign either a grade of zero to the academic work in question or a failing grade in the course in which the violation occurred. The student must be informed in writing of the alleged violation and penalty; a copy of this memo must be sent to the Associate Dean of Academic Affairs.

- A student may appeal either a charge of academic dishonesty or a penalty to the Academic Standards Committee, chaired by the Associate Dean for Academic Affairs.

- Absolute academic integrity and honesty is expected in all of my courses. Penalties for copying, plagiarism, data fabrication, or other types of cheating will not be tolerated and students caught violating the attached policy provisions will be dealt with severely. This can include failure for a test or assignment or a failing grade for the entire course. I have the right to report any and all violations of academic integrity to the appropriate campus administrators.

Syllabus (August 25, 2014)

Meeting #	Day	Date	In-Class	Background Reading prior to class
1	M	25-Aug	Introduction	
2	W	27-Aug	Hallmarks of Cancer	Hallmarks of Cancer (selected)
3	F	29-Aug	Locating & Using Biol. Literature	Ch 1: Locating & Using Biol. Literature
4	M	1-Sep	Disuss Ch5 and Review article 1	Ch 5: Writing A Review Paper; Review article 1
5	W	3-Sep	Disuss Review article 2	Review article 2
6	F	5-Sep	Disuss Review article 3	Review article 3
7	M	8-Sep	Disuss Ch7 and Review article 4	Ch 7: Drafting and Reviewing; Review article 4
8	W	10-Sep	Disuss Review article 5	Review article 5
9	F	12-Sep	(Topics due in 1 week.) Disuss Review article 6	Review article 6
10	M	15-Sep	Discuss Ch10 and Research article 1	Ch 10 Oral Presentations; Research article 1
11	W	17-Sep	Discuss Research article 2	Research article 2
12	F	19-Sep	Discuss melanoma article 1 ; DUE: Topics & Front page of sources for Review Paper	Melanoma article 1
13	M	22-Sep	Discuss Ch4 and melanoma	Ch 4: Writing ...Research Paper; Melanoma article 2
14	W	24-Sep	melanoma	Melanoma article 3
15	F	26-Sep	<i>post draft 1 of the review; melanoma</i>	Melanoma article 4
16	M	29-Sep	discuss draft 1 of the review; melanoma	Melanoma article 5
17	W	1-Oct	melanoma	Melanoma article 6
18	F	3-Oct	<i>post draft 2 of the review</i>	
19	M	6-Oct	<i>discuss draft 2 of the review</i>	
20	W	8-Oct		
21	F	10-Oct	<i>post draft 3 of the review</i>	

			Fall Break	
22	F	17-Oct	discuss draft 3 of the review	
23	M	20-Oct		
24	W	22-Oct		
25	F	24-Oct	oral presentations (2 per day); DUE: final version of Review Paper	
26	M	27-Oct	oral presentations	
27	W	29-Oct	oral presentations	
28	F	31-Oct	oral presentations	
29	M	3-Nov	oral presentations	
30	W	5-Nov	DUE: Topics & Front page of sources for Research Proposal	
31	F	7-Nov	<i>post draft 1 of research proposal</i>	
32	M	10-Nov	<i>discuss draft 1 of research proposal</i>	
33	W	12-Nov		
34	F	14-Nov	<i>post draft 2 of research proposal</i>	
35	M	17-Nov	<i>discuss draft 2 of research proposal</i>	
36	W	19-Nov		
37	F	21-Nov	<i>post draft 3 of research proposal</i>	
38	M	24-Nov	oral presentations (2 per day) ; <i>discuss draft 3 of research proposal</i>	
			Thanksgiving Recess	
39	M	1-Dec	oral presentations	
40	W	3-Dec	oral presentations; final version of Research Proposal due	
41	F	5-Dec	oral presentations	
	T	9-Dec	FINAL EXAM-Save the date (8:30 AM)	