

Senior Seminar | BSC 4931 | Spring 2017 | U09

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Class Meeting Time & Location: Mo 9:00am – 10:15am, Graham Center, Room 273B

Office Hours: Mo 10:30am – 12:30pm, Tu 10:00am – 12:00pm, Fr 2:00pm – 4:00pm

Course Website: See Blackboard

Course Description: Senior Seminar is designed to help Biology and Marine Biology seniors to incorporate the knowledge and skills they have obtained throughout their undergraduate studies. The goals of this course are to provide you with the skills necessary to research primary scientific literature and to effectively integrate and communicate research findings.

Course Objectives: To write a clear and articulate **research paper** that synthesizes current scientific findings, starting with choosing a topic to completing a properly cited paper. You will then share your findings with the class in the form of an **oral presentation** worthy of a scientific meeting or job talk. In addition you will write, or improve upon, your **Curriculum Vitae** (CV).

Learning Outcomes: By the end of this seminar course, you will be able to:

- Effectively research the scientific literature.
- Distinguish between primary literature and review papers.
- Integrate the findings from various primary literature sources into a cohesive and thoughtful review.
- Deliver a professional presentation of your research topic, and address questions from the audience.
- Provide constructive criticism of a science talk.
- Write an effective CV, and understand the differences between it and a resume.

Course Theme: Stem cells in therapy and disease

- Stem cells and cell replacement therapy: Choose a specific disease in which stem cells are being studied for their potential use in cell replacement therapy.
- Cancer stem cells: Choose a specific cancer in which stem cells are suspected to play a major role in disease development and/or progression.

Pre-requisites: PCB 3043, PCB 3063, PCB 4023, and PCB 4674.

Course Materials:

- No textbook is required for this course. Please see Blackboard for a list of recommended writing handbooks and resources.
- There will be a number of assigned readings throughout the semester, which will be posted on Blackboard.
- Lecture notes as well as rubrics for the preparation of research papers and oral presentations will be posted to Blackboard.

Grading Policy

Grading Scale

Letter Grade	Range
A	90-100
B+	87-89
B	80-86
C+	77-79
C	70-76
D	60-69
F	≤59

Grade Distribution

Attendance and Participation	12%
Curriculum Vitae	5%
Research Paper	
Tentative Title and 150-200 Word Synopsis	2%
General Outline (1 page) & 5 Annotated References	5%
Detailed Outline (2-3 pages) & List of 10 References	8%
Final Paper	25%
Mini-presentations	5%
Oral Presentation	
Mandatory Meeting (SEE BELOW)	
Presentation	24%
Participation	6%
ETS Major Field Test in Biology	8%
TOTAL	100%

Attendance (12%): Given the nature of this course, attendance and participation are important. You will get the most out of Senior Seminar if you are actively engaged in class discussions. Doing this will help you in the process of writing your review and putting together your presentation. Attendance is mandatory and constitutes 12% of your grade. One percentage point (1%) from your final grade will be deducted for each unexcused absence. In order to receive credit for attendance you must arrive on time and remain in class for the duration of the period.

Assignments (80%):

Curriculum Vitae (5%): A professional-looking, well organized CV to be turned in along with your final review paper.

Review Paper (40% TOTAL, see detailed grade distribution below): A 10 page (not including figures and references) review of the literature on your chosen topic. Your paper should serve as a synthesis of what is currently known about your topic, and what is being investigated. Do not simply summarize each of your primary sources; rather, integrate the information presented, and come up with your own interpretation of the data. If the data on your topic is controversial (i.e. some articles support one view, while others take a different stance) you must address both arguments. Information about how to properly format your paper and references will be provided through Blackboard.

- Title & Synopsis (150-200 words) (2%): Submit to Blackboard and bring a printed copy to class
- General Outline (1 page) & 5 Annotated References (5%): Of the 5 references, 4 must be primary research papers, 1 can be a review paper. Please submit to Blackboard and bring a printed copy to class.
- Detailed Outline & List of at least 10 references (8%): Of the 10 references, at least 7 must be primary research papers, 3 can be review papers. Please submit to Blackboard and bring a printed copy to class.
- Final Review Paper (with properly-formatted citations and references) (25%): To receive full credit for your final review paper, you must:
 - Turn in your final paper via Blackboard prior to class AND
 - Send your final paper to me via email AND
 - Bring a printed copy of your final paper to class to be turned in at the beginning of the class period.

If you would like to go over a rough draft of your paper prior to submitting your final version, you may schedule an appointment to meet with me at least one week before your paper is due. Note that 5% will be deducted from your raw score (i.e. out of 100 points) for each day your paper is late (See more information on late assignments below).

Papers will be checked for plagiarism through Turnitin integration via Blackboard. ***Plagiarism will NOT be allowed and will result in a failing grade for the course. Please refer to the Academic Honesty section below for more information on plagiarism.***

Oral Presentation (30%):

- Mandatory meeting: You must set up a meeting with me to discuss your presentation at least one week before the date you are scheduled to present. Your presentation must be complete for our meeting. You will not be allowed to present unless you meet with me.
- Presentation (24%): A 10 – 12-minute presentation of your research topic, with a 3 – 5-minute Q&A. The presentation must be uploaded to Blackboard prior to the beginning of the class. You are also required to bring your presentation on a memory stick the day you are scheduled to present. Your presentation will be graded based on my evaluation as well as anonymous evaluations to be completed by your classmates.
- Participation (6%): In addition to presenting you will also be required to ask at least 3 thoughtful questions over the course of the presentations.

ETS Major Field Test in Biology (8%): A nationally scored exit exam for Biology and Marine Biology majors. It is a two-hour, multiple choice, on-line test graded by the Educational Testing Service that allows you to see how you rank nationally against your peers. Scoring is as follows:

- 1-20 percentile: 2pts
- 21-45 percentile: 4pts
- >46 percentile: 8pts

Links for more information:

[detailed description](#) and [sample test questions](#)

Make-Ups/Late Assignments: You will not be allowed to make-up your oral presentation unless you can provide official documentation (For example: doctor's note, court summons, police report) that your inability to be present was the result of an emergency. Although late assignments will be accepted, 5% will be deducted from your raw score for each day your assignment is late.

Emergencies: Emergencies are unforeseeable and unavoidable events that preclude you from being able to attend class. Emergencies include:

- Serious illness/hospitalization
- Death of an immediate family member
- Car accident

You will be required to provide documentation (i.e., doctor's note, certified copy of death certificate, or police report) in order to be excused in case of an emergency.

Incomplete (IN) Grades: In the case of extreme circumstances arising from reasons beyond the student's control (examples include: accident, death of an immediate family member, serious illness), an incomplete (IN) grade may be given at the instructor's discretion (official documentation will be required). IN grades will not be given prior to the Drop date. In order to receive an IN grade, a student must have completed at least half of the assigned course work and have a passing grade. The course must be completed within two terms; otherwise, the student will receive the grade he/she would have earned without being given credit for any incomplete assignments (this will likely be a failing grade).

Blackboard: All lecture notes and reading materials will be posted to Blackboard. Rubrics for your research paper and oral presentation will also be posted to Blackboard; please use these as checklists when preparing your assignments.

Class Rules and Academic Honesty

Class Rules: In order to promote an environment conducive to learning, please adhere to the following common-sense rules:

- *Cell phone use:* Cell phones are not allowed during class; please keep them silenced/off. If you are expecting an emergency phone call/message, you must notify me BEFORE class begins.
- *No computers:* Unless we use it during class
- *Audio/video recording & photography:* Audio recording is allowed, but please NO video recording or photography, as all material will be posted on Blackboard.
- *Disruptive Behavior:* It is everyone's responsibility to maintain a professional environment that promotes learning, minimizes distractions, and protects students'/instructor's rights. Students who fail to adhere to the standard code of conduct set forth by the instructor and the FIU Student Handbook may be subject to disciplinary action in accordance to the FIU Student Handbook.

Academic Honesty: Florida International University has a strict, no-tolerance policy against cheating and plagiarism. The purpose of this course, and of a college education in general, is to provide you with the knowledge you will need as a professional, and to empower you to think independently. Cheating and plagiarism are counterproductive to this purpose, disrespectful to your colleagues, and will not be tolerated. How you conduct yourself now is an indication of the kind of professional (physician, dentist, pharmacist, nurse, scientist) you will be in the future.

Plagiarism is the act of passing another's work, whether or not the work is published, as one's own. Examples of plagiarism include:

- Paraphrasing someone else's ideas without the use of appropriate citations.
- Copying quotes verbatim without the use of quotation marks (NOTE: quoting [even when quotation marks and citations are used] is strongly discouraged in scientific writing). In order to demonstrate understanding you must be able to write in your own words (and remember to always cite the author(s)).
- Changing a few words in a sentence without actually writing the sentence in your own words.
- Turning in someone else's work as your own (copying your classmates' work).
- Giving the incorrect citation for a quote or idea.
- Turning in work you have already turned in for another class.

Cheating and plagiarism will not be tolerated. Any instances of cheating or plagiarism will be dealt with according to FIU's plagiarism and academic misconduct policies, which can be found at:

<http://academic.fiu.edu/polman/sec2web.htm#two-forty-four>

ADA Accommodation Statement: Students with a documented disability as per the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973 (PL 933-112 Section 504) may request accommodations (physical or academic) by contacting the Disability Resource Center (tel. 305-348-3532, TTY/TDD 305-348-3852). The student is also responsible for contacting the instructor as soon as possible such that reasonable accommodations can be made.

Sexual Harassment: Sexual harassment violates student and faculty rights and will not be tolerated. FIU's sexual harassment policy can be found at: http://hr.fiu.edu/uploads/file/EOP/Sexual_Harassment_Policy_as_of_02-10.pdf

Schedule

Date	Lecture/In Class Assignment	Assignment Due
Jan 9	Introduction & Theme	
Jan 16	Martin Luther King Holiday	NO CLASS
Jan 23	Stem Cells in Therapy and Disease Topics discussed Electronic/database resources	Topic Ideas
Jan 30	Electronic/database resources Reading and interpreting scientific papers	Tentative Title and 200-Word Synopsis Read articles posted to Blackboard
Feb 6	Reading and interpreting scientific papers Writing a review paper	General Outline Due & 5 Annotated References Select presentation date
Feb 13	Writing a review paper Preparing an Delivering a Scientific Talk	Detailed Outline & Updated References (minimum 10 references)
Feb 20	Preparing an Delivering a Scientific Talk Curriculum Vitae vs. Resume	
Feb 27	Mini-presentations (9) Critiquing a science talk	3 Presentation slides
Mar 6	Mini-presentations (9) Critiquing a science talk	3 Presentation slides **Final Review Paper & CV due 1 week before presentation
Mar 13	Spring Break	NO CLASS
Mar 20	Oral Presentations (4) <i>Last Day to drop with a DR Grade</i>	**
Mar 27	Oral Presentations (4)	**
Apr 3	Oral Presentations (4)	**
Apr 10	Oral Presentations (4)	**
Apr 17	Oral Presentations (2) "This is Water" & Reflections	**
Apr 24	ETS Major Field Test in Biology	

Mandatory meeting at least one week prior to your presentation

*This syllabus and schedule are subject to change.
Please refer to Blackboard for the most current version.*