

Undergraduate Course Syllabus

Biological Research Writing

BSC 3481 - 2credits

Summer Semester- 2018

Location: Sanson Science SC 119

Time: Monday 10:0am-11:50am

Instructors:

Dr. Evelyn Frazier (Sanson SC 212; 7- 4472; efrazier@fau.edu)

Office Hours: Monday: 1pm to 3pm

Teaching Assistant:

Ms. Chelsea Bennice; cbennice@fau.edu

Mr. Jordan Merritt; jmerrit8@fau.edu

Office Hours: By appointment please with Chelsea Bennice and/or Jordan Merritt

Course Description: This course is intended for undergraduates to experience lab research while working on their own independent project and then presenting this in the form of a graded proposal and public presentation. This is NOT an Honors level course.

Course Objectives: This is a foundation course that prepares the undergraduate student for working independently in a laboratory or field environment. There is a diverse set of disciplines across the Department of Biological Sciences, and therefore this course is designed to not only allow the student to build skill sets in a laboratory/field environment (with at least 10 hours of lab work per week), but to take their research to the next level and present it to the public in the format of a research proposal. Training for presenting their work in both a written and oral form will take place once a week during a 2 hour class. Basic handouts of lecture material covered will be provided in class or on the associated canvas site and should be used only as a guide for your reading. The course will follow a lecture format with in-class discussion of the topics presented, as well as material from selected readings. Questions and active discussion are actively encouraged

Course Pre-requisites: Having applied and been selected to participate in the Introduction to Biological Research Program.

Required Books/Supplements:

Mandatory: Guide to writing your introduction-J. William's Style: Lessons in Clarity and Grace (PDF in canvas).

Optional: Getting In: The Insider's Guide to Finding the Perfect Undergraduate Research experience. David G. Oppenhiemer and Paris Grey. Secret Handshake Press. 2015.

Faculty Expectations of Students:

This course is structured to develop your scientific written and oral skills, among other research skills. The lectures will be based on your own work. Students will be required to submit

homework to Canvas weekly AND bring a hard copy of specific work to be discussed in class, and at other times will be instructed to read scientific articles at home to discuss in class. IF students DO NOT do their homework and come to class UNPREPARED it will become REALLY obvious to everyone that the student is not putting any effort into the course. “Be prepared and be professional”. Your performance in this course will be proportional to the effort that you put into the course. If you are unprepared for class, your participation will suffer and you will NOT learn much. But if you are prepared for class you will learn a great deal. We will be watching you and reading your work every week.

Biological Research Summer 2018 Schedule

Week	Date	In class Activity	Homework	Due Date
Week 1 Frazier/ Chelsea Jordan	5/15	- Revisiting the student/mentor matches and discussion on expectations for this semester, research plans for this semester. - The power of self persuasion and self efficacy activity - How to read a scientific paper activity - Finding references, finding and citing references (Participation 10 pts)	1) Create a timeline for your summer research semester (5pts) 2) Write your tentative research question (discuss with advisor) 3) Find 10 research papers that relate to your question (5pts) 4) Start reading J. William’s Style: Lessons in Clarity and Grace 5) Online activity survey (5 extra credit points)	5/21
Week 2 Jordan	5/22	- In class discussion of research questions - Introduction to Thesis Proposal writing - Background, Hypothesis, and research question activity - How to write your Introduction (Participation 10pts)	1) Prepare outline for the Introduction , include references (5pts) Use Tips for technical writers 2) Continue reading J. William’s Style: Lessons in Clarity and Grace 3) Submit a critical analysis of one of the research papers using the guideline provided (5pts)	5/28
Week 3	Memorial Day Holiday	NO CLASS	1) Write first draft of the Introduction , submit a copy to Canvas and make sure you send your advisor the draft as well. (5pts) 2) Finish reading J. William’s Style: Lessons in Clarity and Grace and write a two-paragraph summary of the tools and writing tactics you have learned to use from this book. (5pts) 3) Online activity survey (5 extra credit points)	6/4
Week 4 Chelsea	6/5	- Discussion on Introduction - Planning your experiments - Keeping an organized lab notebook/ - Discussion of Strategy/ Materials and Methods - First Binder check (5pts) (Participation 10pts)	1) Prepare outline for Research Strategy/Materials and Methods sections, work with your advisor (5pts) 2) Submit a critical analysis of one of the research papers using the guideline provided (5pts) 3) Revise Introduction (include TA and Advisor edits) and submit second draft (5pts)	6/11
Week 5	6/12	-Discussion of Research	1) Write first draft for Research Strategy/Materials	6/18

Jordan Frazier absent		Strategy/ Materials and Methods - What kind of data do I have?How to analyze data - Selection of data case study activity - Excel Tutorial - Making figures (Participation 10 pts)	and Methods sections, work with your advisor submit to canvas (Write a Summary for each of the essays you plan to use) (5pts) 2) Submit a critical analysis of one of the research papers using the guideline provided (5pts)	
Week 6 Chelsea Frazier/ Jordan Absent	6/19	- In class critique of Introduction and Material and Methods - Intro to Powerpoint (Participation 10 pts)	1) Revise Research strategy/materials and methods (include TA and Advisor edits) and submit second draft to canvas (5pts) 2) Prepare Presentation/OUTLINE (5pts) 3) Submit a critical analysis of one of the research papers using the guideline provided (5pts) 5) Online activity survey (5 extra credit points)	6/25
Week 7 Chelsea Frazier Absent	6/26	- Discussion on Powerpoint outlines (computer lab) - Applying to the Honors Thesis Program (Participation 10pts)	1) Submit first draft of PPT to canvas (5pts) 2) Discuss with your advisor the statistics required for your project, submit a summary of analysis you will be running. (5pts) 3) Submit a critical analysis of one of the research papers using the guideline provided (5pts)	7/2
Week 8 Jordan Frazier absent	7/3	- In class critique of PPT & Data Analysis - Expectations for Presentations - Second Binder check (5pts) (Participation 10 pts)	1) Revise second draft of Introduction and Research strategy/materials and methods after comments from TA and advisors and submit final draft (5pts) 2) Prepare outline for Results sections, work with your advisor (5pts) 3) Submit second Draft of PPT to Blackboard and your Advisor – DUE THURSDAY (7/7) (5pts) 4) Submit a critical analysis of one of the research papers using the guideline provided (5pts)	7/9
Week 9 Jordan Frazier absent	7/10	Discuss PPT Practice/Critique presentation (Participation 10 pts)	1) Submit first draft of Results to blackboard (5pts) 2) Submit a critical analysis of one of the research papers using the guideline provided (5pts)	7/16
Week 10 Chelsea	7/17	Practice/Critique presentation (Participation 10 pts)	1) Receive edits from TA's and submit second draft of Results to blackboard (5pts) 2) Submit comments/suggestions for the presenters Canvas (5pts)	7/23
Week 11 Jordan	7/24	First Group of Presentations (Presentations can be used as part of the application to the Honors Thesis Program) Third Binder check (5 pts) (Participation 10pts)	1) Write/Combine the Introduction, Research strategy/materials and methods and Results of your Research Proposal . Submit via canvas. And email to Dr. Frazier (10pts)	Nothing Due
Week 12 Chelsea	7/31	Second Group of Presentations Presentations can be used as part of the application to the Honors Thesis Program)		8/2

		(Participation 10pts)		
Week 13 Frazier	08/07	- Assessment - Discussion about the Honors Thesis Program Privilege Walk activity (Participation 10pts)	Enjoy the rest of your summer!!!	

Instructions to students:

Please turn in all your work as a Word document (.doc, not .docx) in Turnitin through our Honors canvas site. The file name should contain the following: your name, the title of the work, and the date of submission, i.e. **Bennice Research Poster 01-13-2012**. Files that are not saved with the proper name will not be corrected by the TA's. Once the teaching assistant has made suggestions, we expect them to be incorporated in your paper. If you disagree with the suggestions, please talk to T.A. and explain your reasoning for not incorporating the suggested changes. Your research advisor should also be reading your written material. We suggest that you contact your research mentor and ask him/her whether they would like to read EVERY assignment that you write after the TA's revisions or the final products. Only final versions should be submitted to Dr. Frazier. We also expect our suggestions be incorporated on your final version. IF you disagree with the suggestions, explain in writing, why you have chosen not to incorporate them in your final version. All final versions of your documents should be turned in through turnitin via blackboard. This is a writing intensive course so make sure that you avoid plagiarism. Plagiarism in writing is here understood as any sentence with more than 5 consecutive words from an original source and any work taken from a source without proper citation. Students are supposed to turn in their OWN original work and not plagiarize other people's work.

Grading: Letter grade. The course grade will be based on evaluation of the following:

- Attendance and Participation: 120pts (40%)
- Written Assignments: 120pts (40%)
 - Includes 15 pts for the binder with copies of all assignments;
 - 105pts for written assignments.
- Oral Presentation: 60pts (20%)

The grading scale is determined as:

Total Points	Percent	Final Grade
267-300	90-100	A
260-268	87-89	B+
248-259	83-86	B
239-247	80-82	B-
230-238	77-79	C+

218-229	73-76	C
209-217	70-72	C-
200-208	67-69	D+
188-199	63-66	D
179-187	60-62	D-
000-178	00-59	F

An incomplete grade (I) will only be assigned to students who have a passing grade of C and the appropriate documentation to justify absences from class and missed work. Work has to be completed within one 12 months to result in a grade change.

Homework

All homework assignments will be due on Sunday at 11:59pm unless stated otherwise. You will receive revisions the following week and will have to resubmit work incorporating edits by the following homework Sunday. Assignments turned in after this deadline will be considered late and will receive half credit. Half credit assignments will be considered up until the next class period. Assignments turned in after this time will receive zero points, however, assignment submission is still mandatory

Classroom Etiquette Policy

1. Participation in class: This is a highly interactive and writing intensive class, so students have to be present in class and participate in activities as well as be prepared for discussions. Discussion is encouraged but attention should be given to TA's and the instructor when they are speaking. Any disruptions will be addressed and students may incur point penalties if a student is asked to leave the room for infringing on any of the policies in this syllabus. In order to obtain participation points students have to be in class on time, and complete all in class activities and group work. Failure to follow these requirements will result in point deductions in the student's participation.

2. Policy on electronics in the classroom:

NO LAPTOPS, NO PHONES, OR ANY OTHER ELECTRONIC ARE ALLOWED IN CLASS. IF the student does not follow this procedure, the student will be asked to leave the room and lose attendance/participation points. If there is an imminent, important phone call (sick relative, auto mechanic, etc.), please inform the TA BEFORE class begins, put the phone on vibrate, quietly leave the classroom to take the call, and quietly return. Any loss of information or content, while the student is on the phone, is the responsibility of the student.

University ATTENDANCE Policy: Attendance is not optional; it is required.

“Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations

or participation in University- approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence (University Catalogue)."

If you know in advance that you will be absent, or need accommodations for religious reasons, or university related travel to athletic events or conferences you need to contact me to make arrangements in advance. It is your responsibility to attend class, submit your work on time, and follow directions for the assignments. If you do all of these things, it will be reflected in your grade for this course. Points will be deducted for absences, tardiness, late work, and not following directions. Students are allowed to miss 2 classes without justification but will lose attendance /participation points. The student who misses 3 or more meetings without justification will have a 10 point deduction imposed for each unexcused absence in excess of two unexcused absences. Any documentation to excuse an absence must be turned in at the latest one week after the absence and students must notify the faculty and teaching assistants before missing class.

Tardiness to class: Points will be deducted from in class participation points every minute after 10am. If student arrives 15 minutes late the student will lose ALL participation points for that class session. NO EXCEPTIONS!!!!

Policy on make-up for excused absences and late work:

Excused absences: Students will not be penalized for absences due to participation in University-approved activities, including athletic or scholastics teams, musical and theatrical performances, and debate activities. For University sponsored activities the students needs to notify the instructor, Dr. Frazier, PRIOR TO THE ABSENCE and provide documentation. For OTHER ABSENCES, STUDENTS MUST NOTIFY THE INSTRUCTOR WITHIN 24 HOURS OF THE ABSENCE and PROVIDE DOCUMENTATION by the following class and will have one week of the day of the absence to turn in make-up in class assignments and missed homework are due at 11:50pm the Sunday following the absence. These students will be allowed to make up missed work without any reduction in the student's final course grade. Whenever possible students have to contact the faculty and teaching assistants BEFORE these events to arrange for appropriate make-up arrangements that might include turning in the assignment earlier. Reasonable accommodation will also be made for students participating in a religious observance. When prior notification is not possible the student will have 24 hours to notify the instructor and TA's (one email for all of us) about absences. No late assignments or homework will be accepted for points after 11:59PM the Sunday following the absence.

AFTER one week of the absence no late assignments or homework will be accepted for points.

Procedure to make-up for Attendance and Participation points for Excused Absences ONLY:

Attend ONE SCIENTIFIC SEMINAR (that same week) (e.g., CMBB, BIOMED, NEUROSCIENCE, Master/PhD proposals or thesis, online FAU science seminars) outside of the designated class time and submit 1 one page summary for each seminar (5 points). Seminar dates, times, and locations will be posted on Canvas but you can find your own seminars to attend.

Write a summary of each seminar and submit to canvas and make sure to include the following information:

- 0) Your complete name:
- 1) Date and location of seminar
- 2) Title of the scientific talk and name, title, and affiliation of presenter
- 3) Summary of the talk should include:
 - a. What is the main question, hypothesis or objective of this research
 - b. Why is this research important or relevant to society?
 - c. Briefly describe the methodology used by the researcher to address the research question
 - d. Explain the results and whether the results addressed or answered the initial research question
 - e. What was the conclusion of the study?
 - f. Brainstorm future studies that you think could be done to continue this line of research?

Unexcused absences: Students who do not provide documentation to excuse an absence will not be allowed to make up any of the in class missed work for attendance and participation points. They may still turn the homework by the appropriate deadline. Students are allowed 2 unexcused absences, all other absences will result in a 10point deduction per absence in excess of two unexcused absence.

Late assignments: The student who turns assignments after the due date and time, will be able to turn in late homework assignments by the following class for half of the points. After one week, late homework assignments cannot be turned in for points, unless previous arrangements have been made with the instructor of the course. Students who fail to turn in assignments will not receive points and may not pass the course.

Code of Academic Integrity Policy Statement: *Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see:*

<http://www.fau.edu/ctl/4.001> Code of Academic Integrity.pdf

Cheating in this course includes, but is not limited to: plagiarism, presenting false data, presenting someone else's data as your own, providing false documentation to excuse absences,

etc. All instances of cheating will be pursued fully, which means an automatic “F” in the course and notation on the student’s University record for academic irregularity

Canvas: is an online educational program that ALL students enrolled in this class have FREE access to. All you need to do is go to <http://canvas.fau.edu> and follow procedures to login.

E-mail: All students are required to check their FAU e-mails every day once a day. Your instructor as well as your TA will be communicating with you personally via e-mail. DO NOT have your FAU account forwarded to AOL or other e-mail sites because some messages will NOT make it through.

E-mail Etiquette: Wait 48 hours for a response to your e-mail. Do not expect anyone to reply during a weekend or holiday. When e-mailing your T.A.’s, faculty or staff at FAU please write e-mails in a professional format. WE ARE NOT YOUR BUDDIES! We have a PROFESSIONAL relationship and you should be trained to correspond in a professional manner. Here are some suggestions: Greetings: refer to the faculty as Dr. Last Name, T.A.’s and FAU staff as Mr. LAST NAME or Mrs./Ms. LAST NAME; Subject line of the e-mail should include: Course name or number: e.g. Biodiversity or BSC1011; and ALWAYS write you FULL NAME. INNAPROPRIATE E-mail example:” yo, what is my grade b4 the final?” NEVER USE abbreviations such as used in text messaging. No one should have to answer such an e-mail!

Religious Accommodations: Students who wish to be excused from coursework, class activities or examinations must notify the instructor in advance of their intention to participate in religious observation and request an excused absence.

Disability policy statement:

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU’s campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses.