*Undergraduate Course Syllabus*

**Biological Research**

**BSC3481 - 2 credits**

Summer Semester- 2016

Location: Sanson Science SC 119

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

*Instructors:*

Dr. Evelyn Frazier (Sanson SC 212; 561-297- 4472; efrazier@fau.edu)

Office Hours: T-Th: 1pm to 3pm

*Teaching Assistant:*

Ms. Chelsea Bennice; cbennice@fau.edu

Mr. Ramon Garcia-Areas; rgarci45@fau.edu

*Office Hours:* By appointment please with Chelsea Bennice and/or Ramon Garcia-Areas

Prerequisite: By Introduction to Biological Research

*Preamble:* 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, and we are working to change the name ofthe 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 Depru1ment 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 Blackboard 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.

*University Attendance Policy:* Attendance is REQUIRED and not optional. "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 grade is determined by the instructor." (University Catalogue). This is a small group and we will know when someone is absent. 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 coordinator to make

arrangements in ADVANCE. If you have a last minute emergency contact the faculty via email and let us know why you were absent. 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 who miss 3 or more meetings without justification will have a grade of"F".

*Instructions to students:*

Please turn in all your work as a Word document (.doc, not .docx) in safeassign through our Honors blackboard site. The file name should contain the following: your name, the title of the work, and the date of submission, i.e. Garcia-Areas Research Poster 01-13-2012. Files that are not saved with the proper name will not be conected by theTA'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. Only final versions should be submitted to Dr. Barbara Nambu and 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 safeassign via blackboard.

*Required Books/Supplements:* None

Course Evaluation Method: Letter grade. See point distribution below.

Make-up Policy: No make-up for in class assignments. But a student with an excused absence (documentation required) may tum in missed homework assignments the next class period to Dr. Frazier.

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

• Attendance and Participation: 60pts (20%)

• Written Assignments: 120pts (40%)

Includes 20 pts for the binder with copies of all assignments; 1OOpts for written assignments.

• In-class Assignments: 30pts (10%)

• Oral Presentation: 90pts (30%)

The grading scale is determined as:

Total Points

278-300

267-277

260-268

248-259

239-247

230-238

Percent

93-100

90-92

87-89

83-86

80-82

77-79

Final Grade

A A- B+ B B-

C+

|  |  |  |
| --- | --- | --- |
| 218-229209-217 | 73-7670-72 | cC- |
| 200-208 | 67-69 | D+ |
| 188-199179-187000-178 | 63-6660-6200-59 | DD- 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.

*Blackboard:* is an online educational program that ALL students emolled in this class have FREE access to. All you need to do is go to htt p://bl ac k board.fa u.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 reasonable *In compliance with the Americans with Disabilities Act (ADA), students who require reasonable accommodations due to a disability to properly execute coursework must register with the Office of 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.*

University Attendance Policy: "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 grade is determined by the instructor" (University Catalogue).

**Missing** classes - Students who miss a class and tum in documentation to excuse their absences within one week of the day of the absence, will be allowed to make-up the homework for full points but will not receive in class pruticipation points. Students who fail to provide documentation as described above, will NOT be allowed to make-up any work.

**Disability policy statement**

*In compliance with the Americans with Disabilities Act (ADA), students who require reasonable accommodations due to a disability to properly execute coursework must register with the Office of 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.*

**Code of Academic Integrity Policy Statement**

Students at Florida Atlantic University ru·e 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 University Regulation 4.001. <http://www.fau.edu/ctl/4.001> Code of Academic lntegrity.pdf

Academic dishonesty consists of, and is not restricted to, submitting work that is NOT your own, signing the attendance sheet for another student, producing false documentation to excuse absence, etc. Plagiarizing will result in a grade of "F" in the course and student's transcripts will be flagged.

**Religious Accommodations:** If you will be absent because of a holiday not observed by the University, you must notify me in **advance** to make ru-rru1gements to make up work immediately upon your return to school. Reasonable accommodation will also be made for students participating in a religious observance IF students contact me, one week before the holiday and provide the necessary documentation.

Biological Research Sum mer 2016 Sched ule

Meeting: Friday I 0:00 am to II :50am in SC 1 19

Contact Info: Dr. Frazier: efi·azier@fau.edu

Chelsea Bennice, cbennice@fau.edu; Ramon Garcia-Areas: rgarci45@fau.edu

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| Week | Date | Activity | Homework Due DateI) Create a timeline for your summer research semester 5/192) Write your tentative research question3) Find I 0 research papers that relate to your question |
| Week I | 05/15 | -Discussion on last semester's work and expectations for this semester, |
|  |  | research plans for this semester. |
|  |  | - How to read a scientific paper and |
|  |  | locate more references |
|  |  | -Introduction to Thesis Proposal |
|  |  | writing |
| Week 2 | 05/22 | -Guide to writing your introduction | I) Prepare outline for the Introd uction, include |  | 5/26 |
| Ramon |  | -J. William's Sty le: Lessons in Clarity | references |  |  |
| out |  | and Grace- Finding references |  |  |  |
|  |  | - Referencing software |  |  |  |
| Week 3 | 05/29 | - Discussion on Introduction- Planning your experiments | I ) Write first draft of the Introd uction, submit a copyto Blackboard and make sure you send your advisor the |  | 6/2 |
|  |  | -Keeping an organized lab notebook | draft as well |  |  |
|  |  | -Ethics and Scientific Research | 2) Prepare outl ine for Research Strategy/Materia ls |  |  |
|  |  |  | and Methods sections, work with vour advisor |  |  |
| Week4Chelsea is out | 06/05 | -Discussion of Research Strategy/ Materials and Methods- Excel Tutorial-Making figures | I ) Revise Introductionafter comments from TA and advisors and submit second draft2) Write first draft for Research St rategy/Materials |  | *619* |
|  |  |  | and Met hods sections, work with your advisor |  |  |
| Week5 | 06/12 | - In class critique of Introduction- Material and Methods | I) Prepare outline for Results sections, work with youradvisor |  | 6/16 |
|  |  |  | 2) Submit frrst draft of Research strategy/materialsand methods to blackboard (Write a Summa ry for |  |  |
|  |  |  | each of the assays you plan to use) |  |  |
|  |  |  | 3) Partner Revisions of introduction |  |  |
| Week6 | 06/19 | -Intra to Powerpoint | ! )Prepare Presentation/OUTLINE(due date variesamong students) |  | 6/23 |
|  |  |  | THURSDAY |  |  |
|  |  |  | 2) Submit first draft of Results to blackboard (Write a |  |  |
|  |  |  | Sum mary for each of the assays you plan to use) |  |  |
| Week 7 | 06/26 | -1n class critique of Results | I) Write second draft of your ResearchStrategy/Materials and Methods Sections |  | 6/30 |
|  |  | -Expectations for Presentations | THURSDAY |  |  |
|  |  |  | 2) First Draft of PPT - DUE THURSDAY |  |  |
|  |  |  | 3) Write a summary of your Results and start |  |  |
|  |  |  | making figures a nd tables |  |  |
| WeekS | 07/03 | Discuss PPTPractice/Critique presentation | !)Second Draft ofPPT2) Write the first draft of results and submit via |  | 0717 |
|  |  |  | blackboard and run it by your advisor |  |  |
| Week9Evelyn | 07/10 | Practice/Critique presentation | I ) Revise Materials and Methodsafter comments from TA and advisors and submit final |  | 07/14 |
| and |  |  | draft |  |  |
| chealse |  |  | 2) Receive edits from TA's and submit second draft of |  |  |
| a are |  |  | results to blackboard |  |  |
| out |  |  | 3) Submit comments/suggestions for the presenters BB |  |  |

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| Week10 | 07/l7 | First Group of Presentations | l) Write the Introduction, Research Strategy andResults of your Research Proposal. Submit viablackboard. | NothingDue |  |
| WeekII | 07/24 | Second Group of Presentations-Overview of Semester-Expectations for next fall |  |  | 07/28 |
| Week12 | 07/31 | Study for your finals | Enjoy the rest of your summer!!! |  |