

BROADER IMPACTS OF SCIENCE ON SOCIETY

FALL 2023 Syllabus



BSC 6038 & GLY 6932

Credits: 2

**Thursdays, periods 6 & 7
(12:50 - 2:45 PM)**

Location: 222 Carr Hall

Required Textbook:

**MacFadden, Bruce J. (2019)
Broader Impacts of Science
on Society.**

ISBN 978-1-108-43428-7

COURSE INFORMATION

COURSE DESCRIPTION

There is an increasing emphasis on the relevance of what a scientist does and how we impact society in general.

This is manifested in many ways, for example, NSF now requires “Broader Impact” plans in grant proposals and explicit plans for how these kinds of activities will be accomplished. This seminar-format course will explore how scientists can increase our impact on society and will provide students the tools to prepare successful “Broader Impact” plans.

LEARNING GOALS

By the end of the course, the student will be able to:

- Better understand the landscape of NSF’s Broader Impacts review criteria;
- evaluate Broader Impacts plans from other researchers;
- design many types of broader impacts activities at UF; and
- develop the tools needed to conduct Broader Impacts activities in the future.

INSTRUCTORS



Dr. Bruce J. MacFadden
Distinguished Professor & Curator
FLMNH

- Office Hours: After class or by appointment.
- Phone: (352) 273-1937
- Email: bmacfadd@ufl.edu



Dr. Mariela Pajuelo
Assistant Scientist FLMNH

- Office Hours: After class or by appointment.
- Phone: (352) 214-3060
- Email: mpajuelo@ufl.edu

CLASS FORMAT

Class periods will mostly be devoted to presentations and discussions (e.g., of readings). Guest speakers will provide a connection from the readings onto 'real world' applications. The last class will be devoted to students' final project presentations.

COURSE POLICIES

CLASS DEMEANOR

- Students are expected to be to class on time and behave in a manner that is respectful to the instructor and to fellow students.
- Please do not use of cell phones and restrict eating to outside of the classroom.
- Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

GRADING

LIST OF GRADED WORK

- **CLASS PARTICIPATION (50%)**: including
 - being present in class for the entire period;
 - having at least one question written down about the week's assignment; and
 - active participation (i.e., discussing assignment or asking question(s) in class.
- **CLASS PRESENTATION (20%)**: based on a topic of your interest. This will be presented during weeks 9-13.
- **FINAL PROJECT (30%)**: some kind of project related to Broader Impacts.

COMMUNICATION, CONTENT and DELIVERY

Assignments and notifications will be provided using the [UF e-Learning course website](#).

COURSE EVALUATIONS

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at [GatorEvals](#). Summary results of these assessments are available to students at [GatorEvals Results](#).

ATTENDANCE AND MAKE-UP ASSIGNMENTS

- Because this is a student-focused course, attendance is required and is part of the final grade (see below).
- Other requirements for class attendance, assignments, and related matters are consistent with university policies that can be found in the [Graduate Catalog](#).

GRADING SCALE (%)

A:	93-100
A-:	90-<93
B+:	88-<90
B:	83-<88
B-:	80-<83
C+:	78-<80
C:	73-<78
C-:	70-<73
D:	60-<70
E:	<60

CLASS SCHEDULE

Week	Date	Topic	Readings	Assignment
1	Aug 24	Introduction	Chapter 2	
2	Aug 31	Broadening Participation in STEM	TBD	
3	Sep 7	Science Communication*	Chapters 4 & 8	Elevator speeches
4	Sep 14	K-12 Outreach*	Chapter 11	
5	Sep 21	Museums & Pop-up Exhibits*	Chapter 13	
6	Sep 28	Museum Science*	TBD	Class Lecture Title & Description
7	Oct 5	Innovation; Strategic science vs curiosity science	Chapters 3 & 7	Final Project Title & Description
8	Oct 12	Evaluation*	Chapter 18	
9	Oct 19	TBD (Class lecture)		
10	Oct 26	TBD (Class lecture)		Project Summary
11	Nov 2	TBD (Class lecture)		
12	Nov 9	TBD (Class lecture)		
13	Nov 17	TBD (Class lecture)		
14	Nov 23	No Class – Thanksgiving Holiday		
15	Nov 30	Final Project Presentations		

*Guest speaker

HELP & OTHER RESOURCES

DISSABILITY ACCOMODATION

Students with disabilities requesting accommodations should first register with the [Disability Resource Center](#) (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible.

UF COUNSELING RESOURCES

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

Many students experience test anxiety and other stress related problems. [The Counseling and Wellness Center](#) can help you address those problems (4th floor at Peabody Hall, 392-1575).

TOLERANCE POLICY

[The University of Florida policy on Discrimination and Harassment](#) will be adhered to strictly. Any student who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status can make a formal complaint report to the Institutional Equity and Diversity officer and/or to the Dean of Students Office/Student Conduct and Conflict Resolution (DSO/SCCR). Resources and reporting options can be found online at Student Conduct and Conflict Resolution.