Lecture Section 05: TR 3:15 - 5:05 pm, 840HSB 209, 343

Instructor: <u>Janet Zhang-Lea</u>

Office:	830HSB 327
Zoom Office Link:	https://gonzaga.zoom.us/j/9706245962
Office Hours:	Tuesday 2:00 – 4:00 pm
	Friday 10:00 am -12:00 pm
	Or by appointment
Email:	lea@gonzaga.edu
Phone:	(509) 313-4798

OVERVIEW

HPHY 441L-442L is a two-semester series that involves laboratory research in the study of physiology or a related sub-discipline such as biomechanics or biomedical engineering. Students work in groups with a faculty advisor (course instructor) in proposing, researching and designing a novel research project.

GOALS

The primary goal of HPHY 441L for student research groups to perform literature research and provide critical assessment of published scientific studies in order to develop a testable research hypothesis. Over the course of the semester, research groups will author a research proposal, conduct pilot work and conclude the semester by submitting a research proposal to Gonzaga University's Institutional Review Board for approval to begin the research project the following semester.

COURSE OBJECTIVES

After completion of the course, students will be able to perform literature research, develop testable research hypotheses, develop and present research proposals (written and oral communication), develop research protocols through pilot testing and request ethics approval for the proposed project.

LEARNING ACTIVITIES

1. Weekly group meetings for planning and development of a research project
2. Student-lead research topic discussion of scientific literature
3. Extensive writing and revising practice on review of literature
4. Clear articulation of testable research hypothesis and development of research proposal
5. Laboratory/pilot testing of research protocol
6. Application for ethics approval through Internal Review Board Approval (IRB) for the use of human subjects

EVALUATION

Each student's grade for the course will be based on a combination of individual and group assignments. Students will submit a peer-evaluation of group assignments, which will be considered when determining grades for group assignments (i.e. it is not necessarily the case that each group member receive the same grade).

GRADING

Initial period	
• In-class presentation	10%
Drafting period:	
• Completing 5 sections revision (5*5%)	25%
Finalizing period:	
• Completing 4 rounds of revision of the full proposal (4*10%)	40%
• Submitting IRB on or before Apr 28th (Friday)	5%
• Final presentation	10%
Overall peer-evaluation:	
• Contribution and participation in the project	10%
Total	100%

Assignment of Final Grades

>= 92.00	A		73.00 – 76.99	C
90.00 – 91.99	A-		70.00 – 72.99	C-
87.00 – 89.99	B+		67.00 – 69.99	D+
83.00 – 86.99	B		60.00 – 66.99	D
80.00 – 82.99	B-		< 60.00	F
77.00 – 79.99	C+			

TEXT

Students will likely need a statistics/research design text such as: Field, A. Discovering Statistics Using SPSS. (Any version)

Tentative schedule

1. Jan 19 (R) – Classroom

2. Jan 26 (R) – In Lab

3. Feb 2 (R) – Classroom

4. Feb 9 (R) – Classroom

Initial period
There are three major goals during this period
 1. Identifying a research question for each group
 2. Familiarizing with previous literatures
 3. Familiarizing with required biomechanics equipment

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5. **Feb 16 (R)** – Classroom

In-class presentation Research Question & Hypothesis

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6. Feb 23 (R) (No class)

7. Mar 2 (R) – In Lab

8. Mar 9 (R) – In Lab

9. Mar 16 (R) (Spring break)

10. Mar 23 (R) – In Lab

11. Mar 30 (R) – In Lab

Drafting period
There are 3 major goals
 1. Continuation of literature review and research
 2. Pilot testing
 3. Section writing
    a. Sections: Abstract, introduction, Study design and protocol, Inclusion/exclusion criteria, Data analysis
    b. Students are expected to turn in 1 section of the research proposal every week, with at least 5 rounds of revision happening in this 5-week period, excluding spring break
    c. Students does not have to turn in the draft in the sequence appeared in the IRB form

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12. Apr 6 (R) – In Lab

13. Apr 13 (R) – In Lab

14. Apr 20 (R) – In Lab

Finalizing period
There are 3 major goals
 1. Continuation of pilot testing
 2. Finalizing the research protocol
 3. Finalizing IRB application document
    a. Students are expected to turn in 1 revision of full proposal every week, with 4 rounds of revision during this 4-week period

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15. **Apr 27 (R)** – In Lab

IRB application (Last day to submit: Apr 28th)

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16. May 4 (R) – In Lab

Buffering period
Late submission of IRB application

Final presentation tentative date: May 5th afternoon

Syllabus Statements

Class Attendance Policy

Gonzaga University presumes that students have sufficient maturity to recognize their responsibility for regular class engagement, and we maintain a general expectation that students will attend courses.

Gonzaga's standard policy on absences applies in this course, that the maximum allowable absence is two class hours (100 minutes) for each class credit. For three-credit classes, the maximum absence is, therefore, six class hours (300 minutes). The grade given for excessive absences is a "V," which has the same effect as "F" (Fail) and is counted in the GPA. This outcome can be appealed to the Dean of the College/School in which the course is offered. Academic support will be provided for students who are impacted by COVID-19 related sickness and periods of quarantine or isolation on a case-by-case basis. Please notify me in-person, via a phone call (5093134798) or email me (lea@gonzaga.edu) if you will miss a class and need academic assistance. **If you will miss an exam, please notify me at least 2 weeks before the date of the exam for me to arrange accommodations**.

Class Recordings

In class sessions will not be recorded. This may change depending on the number of Covid-19 related absences and classroom technology to allow recording. This course may make use of pre-recorded material that will be available to you for each topic in the course. **You may not duplicate or distribute these prerecorded materials.** Your compliance with the terms of this syllabus regarding use of class recordings is subject to the Student Code of Conduct; violations will be reviewed according to the provisions in the Administration of Student Code of Conduct.

Academic Integrity Policy

All members of the Gonzaga community are expected to adhere to principles of honesty and integrity in their academic endeavors, and this course will abide strictly by procedures and guidelines of the University's Academic Integrity Policy, which can be found in full here or at the Academic Integrity Policy Resources webpage. Students and faculty are governed by this policy. Familiarize yourself with its scope and procedures. Ignorance of the policy shall not serve as a defense against any violations.

Students with Disabilities/Medical Conditions and Accessible Documents (EITA)

The Americans with Disabilities Act is a federal anti-discrimination statute that provides civil rights protection for persons with disabilities and requires that students with disabilities be guaranteed a learning environment that provides reasonable accommodations. As COVID-related challenges persist, students with qualifying disabilities and/or medical conditions, as per CDC recommendations for higher education, are eligible for and may request reasonable accommodations through established procedures. Students should contact the Disability Access Office to begin the process. In addition, Gonzaga University seeks to provide equal access to electronic content consistent with applicable federal and state laws, such that when possible "Accessible Documents" will be created with the proper formatting tools to maximize

communication of content regardless of what device or adaptive equipment he or she is using; see [Electronic Information Technology Accessibility (EITA)](#).

Statement Regarding Course Expectations
As a Jesuit university that seeks to provide an equal opportunity to learn for all students, this course is offered with the expectation that students are here voluntarily, and understand that the university expects all interactions relating to its courses to occur in the context of a professional academic work environment that is welcoming and accessible to all students regardless of gender, race, ethnicity, religion, disability, sexual orientation or identity and any other non-merit factor in educational programs or activities. This environment includes virtual course environments, such as Blackboard, and any course-related communications via e-mail and social media. We strive to create a healthy environment conducive to intellectual honesty and free inquiry; as such, behaviors which constitute harassment, discrimination, or hostile and/or inappropriate conduct will not be tolerated, and faculty, staff and administrators will take action to ensure such matters are addressed promptly and appropriately.

Notice of Non-Discrimination
Gonzaga University does not discriminate against any person on the basis of race, color, religion, national origin, sex, marital status, sexual orientation, gender identity, age, disability, military status, or any characteristic protected by local, state, or federal law, or any other non-merit factor in employment, educational program, or activities that it operates.

Harassment & Discrimination Policy
Consistent with its mission, Gonzaga seeks to assure that all community members learn and work in a welcoming and inclusive environment (please review [Harassment & Discrimination Policy](#)). Title VII, Title IX and Gonzaga's policy prohibit gender-based harassment, discrimination and sexual misconduct, including sexual assault, dating and domestic violence, and stalking. Gonzaga encourages anyone experiencing gender-based harassment, discrimination or sexual misconduct to talk to someone from Gonzaga's reporting and support resources list found here: [Title IX | myGU (my.gonzaga.edu).](#)

Resources and Reporting Options for Incidents of Sexual Misconduct
It may be helpful for students to talk about what happened in order to get the support needed and for Gonzaga to respond appropriately. There are options for support and resolution, namely confidential support resources and campus reporting and support options are available [here](#). Gonzaga will respond to all reports of sexual misconduct in order to stop the harassment, discrimination, or misconduct; prevent its reoccurrence; and address its effects. Responses may vary from support service referrals to formal investigations.

Faculty members can connect students to resources on campus, including those who are specially trained in and experienced in assisting in such complaints, and therefore will report all incidents of gender-based harassment, discrimination and sexual misconduct to Title IX to provide the Title IX Director with all relevant details, including names and identifying

information, of the incident reported. A representative from that office will reach out to the student via phone and/or email to explore options for support, safety measures and reporting. For more information about policies and resources or reporting options, please visit the Equity, Diversity & Inclusion at Gonzaga Webpage and Title IX. To make a report of harassment, discrimination or sexual misconduct directly:

- Contact the Title IX Coordinator by phone, email, or in person:

Stephanie Thomas, Title IX Coordinator, 509-313-6910, thomassn@gonzaga.edu, Business Services Building, Office 18

- Or complete an online reporting form.

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FERPA and Privacy
Under FERPA (Family Educational Rights and Privacy Act), your educational records are confidential and protected. Under most circumstances your records will not be released without your written and signed consent, which must be documented through the Registrar's Office. Instructors are not allowed to publicly post grades by student name, social security number, GU student identification number, or any other identifiable means, without written consent from the student. The FERPA policy does not apply to third party online applications that may be used in courses such that it is the student's responsibility to read the privacy documentation at each site.

Course Evaluations
At Gonzaga, we take teaching seriously. We ask our students to evaluate their courses and instructors so that we can improve our classes and programs and provide the best possible learning experience. Near the end of the semester, students will be asked to complete the course/instructor evaluation on-line to provide feedback on their classroom experience (see the Course Evaluations website for more information). This feedback is important and appreciated.

Diversity, Equity and Inclusion
Our human differences contribute to the richness of our academic community life. In partnership with the Office of Diversity, Equity & Inclusion, we expect everyone to   cultivate an academic environment that is welcoming and accessible to students, staff, and instructors

regardless of gender, race, ethnicity, religion, disability, and sexual orientation or identity. The Bias Incident Assessment and Support (BIAS) Team exists to foster a campus environment where everyone feels safe and respected. Those who experience or witness a bias incident should visit the BIAS Report site.

Religious Accommodations for Students
In compliance with Washington State law, Gonzaga University will reasonably accommodate students who, due to the observance of religious holidays, expect to be absent or endure a significant hardship during certain days of their academic course or program. Gonzaga University prohibits discrimination, harassment, and retaliation on the basis of religion. The Religious Accommodations for Students policy as well as the process by which students can request accommodations can be found on the Academic Policies and Procedures Webpage.

Table of associated links for university and academic policy statements that are relevant to classroom learning and syllabi.

University and Academic Policy Statements	Associated Links
Diversity, Equity and Inclusion	Visit Equity, Diversity & Inclusion at Gonzaga Page Bias Incident Assessment and Support (BIAS) Team
Harassment and Discrimination Policy	Harassment & Discrimination Policy Title IX I myGU (my.gonzaga.edu)
Academic Integrity Policy	Visit Academic Integrity Policy Resources Page
Students With Disabilities/Medical Conditions and Accessible Documents (EITA)	Disability Access Office EITA Office
Religious Accommodations for Students	Visit Academic Policies and Procedures Page
FERPA and Privacy	FERPA
Class Attendance Policy	Visit Academic Policies and Procedures Page
* Class Recording Policy (audio, video, and photos)	Visit Academic Policies and Procedures Page GU Student Code of Conduct
Course Evaluations	Accessing and Timing of Course Evaluations