

Course Syllabus

NFS 6362 Introduction to Research Methods (3 credits)

Modality: In-person

Location: Lafayette Hall L406

Time: Tuesday / Thursday 8:30am – 9:45am

Instructor information

Lecturer: Beth (Rice) Bradley, PhD (she / her; referred to as Dr. Bradley)

Office: 228 MLS / Microsoft Teams

e-mail: Beth.Bradley@uvm.edu

Office hours

Dr. Bradley holds office hours on Monday, Wednesday, and Friday between 8:30am and 2:30pm. Office hours with Dr. Bradley are by appointment only and will be held in-person or on Microsoft Teams. Please e-mail Dr. Bradley to schedule an appointment.

Course overview

NFS 6362: Introduction to Research Methods is designed to teach students the fundamentals of research design, execution, and evaluation necessary to conduct, interpret, critically assess, and apply research to evidence-based practice. The course begins with an overview of research classification and writing. Students will explore research databases and learn how to search for appropriate journal articles necessary for preparing a literature review. Ethical considerations in research such as informed consent, privacy, and institutional review boards will be discussed, and students will complete certifications relevant to their fields of study. The next section of the course focuses on research design, and core elements such as reliability, validity, bias, sampling, and statistical significance will be explored. Throughout the semester students will participate in journal clubs and work on scaffolded projects relevant to their field of study such as a literature review and grant pre-proposal. Students will be practice and be exposed to peer-review. The course will conclude with students delivering research presentations.

Learning objectives

Upon the completion of this course, students will be able to:

1. Identify and describe research classifications
2. Discuss ethical approaches to the responsible conduct of research
3. Critically assess published research
4. Prepare and review independent research proposals

Required Course Materials

Students are required to obtain the textbook **Nutrition Research: Concepts and Applications**, 1st Ed., by Drummond and Murphy-Reyes. ISBN: 9781284101539. A free PDF of the textbook is available on the course Brightspace page.

Students are required to obtain the book **The Immortal Life of Henrietta Lacks**, by Rebecca Skloot. This book is available to borrow from the Howe Library.

Our Common Ground

Attendance

Lectures will be presented by Dr. Bradley, live, in-person. Students are expected to attend and participate in lecture. It is the responsibility of the student to inform Dr. Bradley regarding any absence or tardiness from class, and to discuss this with her in advance whenever possible. In the event classes are required to move to remote instruction, lectures will be presented live over MS Teams during regularly scheduled class time. Remote lectures will be recorded and uploaded to MS Teams and the class Brightspace page immediately after class.

Assignments

Assignments in NFS 6362 are designed to enhance learning outside the classroom and compliment graduate degree requirements. Free on-line trainings through [UVM and the Collaborative Institutional Training Initiative \(CITI\)](#) will be assigned to give students access to trainings and certifications that can be directly applied to their graduate research. Writing assignments will be designed to help students with systematically obtaining and annotating references relevant to their graduate research projects and provide them with the opportunity to draft and revise their graduate research proposals and papers under the guidance of the instructor and their peers.

Journal Club

Journal club held during NFS 6362 class time is designed to practice assessing and critically analyzing current research in the field of Nutrition and Food Sciences that is relevant to the students' research projects. Students will read and review articles individually and then discuss strengths and limitations together in a round-table format.

Research proposal and communication

Through a series of strategically sequenced assignments that scaffold over time, students will complete a literature review, grant pre-proposal, and scientific research presentation relevant to their graduate research project.

Peer Review

Peer review is a cornerstone of scientific research and communication. Through active participation in the peer-review process students will give and receive critical feedback that will enhance their own research and the research of others.

Student Presentations

Student presentations are designed to help students summarize the knowledge gained throughout the semester and provide them the opportunity to practice delivering scientific research seminars.

Grading and assessment overview

Students will be graded on the following assessments:

Assessments	% final grade
Assignments	20
Research question and search terms	5
On-line CITI training	5
Reference list	5
Annotated references	5
Journal / book club	20
Journal club #1	5
Journal club #2	5
Journal club #3	5
Book Club	5
Research proposal and communication	40
Literature review	15
Grant proposal	15
Presentation	10
Peer Review	15
Literature review	5
Grant proposal	5
Presentation	5
Student Presentations	5

Final Grades

The following will be used to assign final grades for the semester.

Grading		
A+: ≥98.0%	A: 93.0 - 97.9%	A-: 90.0 - 92.9%
B+: 88.0 - 89.9%	B: 83.0 - 87.9%	B-: 80.0 - 82.9%
C+: 78.0 - 79.9%	C: 73.0 - 77.9%	C-: 70.0 - 72.9%
F: < 70.0%		

Student accessibility services

In keeping with University policy, any student with a documented disability interested in utilizing ADA accommodations should contact Student Accessibility Services (SAS), the office of Disability Services on campus for students. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter. All students are strongly recommended to discuss with their faculty the accommodations they plan to use in each course. Faculty who receive Letters of Accommodation with Disability Related Flexible accommodations will need to fill out the Disability Related Flexibility Agreement. Any questions from faculty or students on the agreement should be directed to the SAS specialist who is indicated on the letter.

Student rights and responsibilities

UVM student rights and responsibilities can be found [here](#).

The UVM Graduate Writing Center

The UVM Graduate Writing Center, opening September 6 for the Fall semester, offers free one-on-one and group consultations to graduate students working on a wide range of academic and professional projects: course papers, proposals, posters, dissertations, and more. Students can meet with a graduate writing consultant in person or online via Teams at any stage of a project, from initial planning to big-picture revisions and final editing. We also offer two-part Review and Meet appointments for longer or technical drafts, Feedback by Email if you aren't able to meet with a consultant in person or online, and writing retreats. Visit uvm.edu/mywconline.net to learn more and schedule an appointment. For news about weekly virtual writing retreats and special-topic workshops, visit our website at uvm.edu/gradwriting, watch for our announcements in the Graduate College weekly newsletter, or follow us on Facebook at <https://www.facebook.com/uvmgradwriting>.

UVM Student Resources

[Office of International Education](#)

[Center for Health and Wellbeing Counseling and Psychiatry Services](#)

[The Mosaic Center for Students of Color](#)

[Prism Center](#)

Course Schedule

Date	Topic	Assigned Reading <i>Complete before class on date assigned</i>	Assignments
Tues. 08/29	Introductions; course syllabus; class expectations		
Thurs. 08/31	Introduction to Research and Research Classification	Read Drummond & Murphy-Reyes, Chapter 1	
Tues. 09/05	Writing a research question	Read Drummond & Murphy-Reyes, Chapter 14	
Thurs. 09/07	Writing a literature review; reference management software		
Tues. 09/12	Introduction to quantitative research	Read Drummond & Murphy-Reyes, Chapter 4	
Thurs. 09/14	Conducting a literature search <i>Tour of Howe Library</i> <i>Guest lecturer: Christie Silkotch, Science and Data Librarian</i>	Read Drummond & Murphy-Reyes, Chapter 2	Submit your research question <i>and</i> search terms over Brightspace before the start of class
Tues. 09/19	Research ethics and institutional review boards <i>Guest lecturer: Melanie Locher, IRB Director</i>	Read Drummond & Murphy-Reyes, Chapter 3	Complete UVM Citi trainings (IRB, IACUC, or IBC) and submit completion certificate over Brightspace before the start of class
Thurs. 09/21	Interpretation of quantitative data 9:15am EndNote live tutorial with <i>guest lecturer: Laurie Kutner, Library Associate Professor</i>	Read Drummond & Murphy-Reyes, Chapter 5	Submit draft reference list over Brightspace by 11:59pm

Tues. 09/26	Quantitative research design	Read Drummond & Murphy-Reyes, Chapter 6	
Thurs. 09/28	Journal club: quantitative research evaluation	Class-selected journal article	Submit Journal Club #1 over Brightspace before the start of class
Tues. 10/03	Book club: The Immortal Life of Henrietta Lacks	Read The Immortal Life of Henrietta Lacks	Submit book club reflection over Brightspace before the start of class
Thurs. 10/05	Epidemiologic research design	Read Drummond & Murphy-Reyes, Chapter 7	Submit annotated references over Brightspace by 11:59pm
Tues. 10/10	Introduction to qualitative research and qualitative research design	Read Drummond & Murphy-Reyes, Chapters 9 and 10	
Thurs. 10/12	Journal club: qualitative research evaluation	Class-selected journal article	Submit Journal Club #2 over Brightspace before the start of class
Tues. 10/17	Evidence-based nutrition practice guidelines	Read Drummond & Murphy-Reyes, Chapter 12	
Thurs. 10/19	<i>No class, time to work on literature review</i>		Submit literature review for peer review over Brightspace by 11:59pm
Tues. 10/24	The development and use of surveys in research <i>Guest lecturer: Farryl Bertmann, PhD, RDN, CD, Clinical Associate Professor, MSD Program Director</i>	Read Drummond & Murphy-Reyes, Chapter 13	
Thurs. 10/26	Securing grants for Research <i>Guest lecturer: Meredith Niles</i>	Read Drummond & Murphy-Reyes, Chapter 15	

Tues. 10/31	Catch-up and review, revisions		Submit peer review of literature review over Brightspace by 11:59pm
Thurs. 11/02	Journal club	Class-selected journal article	Submit Journal Club #3 over Brightspace before the start of class
Tues. 11/07	<i>No class, time to work on grant pre-proposal</i>		Submit grant pre- proposal over Brightspace by 11:59pm
Thurs. 11/09	Elements of an effective research presentation		
Tues. 11/14	Grant pre-proposal review panel		Submit peer-review of grant pre-proposal over Brightspace before the start of class
Thurs. 11/16	Grant pre-proposal review panel		Submit research presentation for peer review over Brightspace by 11:59pm
Tues. 11/21	<i>No class, Fall Recess</i>		
Thurs. 11/23			
Tues. 11/28	Disseminating research		
Thurs. 11/30	Prepare for student research presentations		Submit peer-review of research presentation over Brightspace by the start of class
Tues. 12/05	Student research presentations		
Thurs. 12/07	Student research presentations		

Tues. 12/12	<i>NFS 6362 will not have a final exam</i>
Thurs. 12/14	