

Course Syllabus**NFS 362 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: 252 MLS Carrigan Wing / Microsoft Teams

e-mail: Beth.Bradley@uvm.edu

Office hours

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 362: 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, writing, and ethics. Students will explore research databases and learn how to search for appropriate journal articles necessary for preparing a literature review. Informed consent, privacy, and institutional review boards will be discussed. The next section of the course focuses on research design; core elements such as reliability, validity, bias, sampling, and statistical significance will be explored. Students will be exposed to the evidence review process used by the Evidence Analysis Library to see how conclusions from evidence analysis questions are used to develop recommendations and guidelines. The course will conclude with the delivery and peer-review of a research paper, grant proposal, and presentation.

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 obtain the textbook **Nutrition Research: Concepts and Applications**, 1st Ed., by Drummond and Murphy-Reyes. ISBN: 9781284101539. A PDF of the textbook as well as all other required readings will be uploaded to the course Blackboard page.

[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 Blackboard page immediately after class.

Assignments

Assignments in NFS 362 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 362 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 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 club	15
#1	5
#2	5
#3	5
Research proposal and communication	45
Literature review	15
Grant proposal	15
Presentation	15
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 (Complete before class on date assigned)	Assignments (Due by 11:59pm on date assigned)
T, 08/30	Introductions; course syllabus; introduction to research		
Th, 09/01	Research classification	Read Drummond & Murphy-Reyes, Chapter 1 by 8:30am	
T, 09/06	Conducting a literature search <i>Guest lecturer: Christie Silkotch, Science and Data Librarian</i>	Read Drummond & Murphy-Reyes, Chapter 2 by 8:30am	
Th, 09/08	Writing a research question and literature review; reference management software	Read Drummond & Murphy-Reyes, Chapter 2 by 8:30am	
T, 09/13	Research ethics and institutional review boards <i>Guest lecturer: Melanie Locher, IRB Director</i>	Read Drummond & Murphy-Reyes, Chapter 3 by 8:30am	Submit your research question <i>and</i> search terms over Blackboard by 11:59pm
Th, 09/15	Introduction to quantitative research <i>Tour Human Clinical Research Center</i>	Read Drummond & Murphy-Reyes, Chapter 4 by 8:30am	Complete UVM Citi trainings (IRB, IACUC, or IBC) and submit completion certificate over Blackboard by 11:59pm
T, 09/20	Interpretation of quantitative data	Read Drummond & Murphy-Reyes, Chapter 5 by 8:30am	
Th, 09/22	Interpretation of quantitative data, continued	Read Drummond & Murphy-Reyes, Chapter 5 by 8:30am	
T, 09/27	Quantitative research design	Read Drummond & Murphy-Reyes, Chapter 6 by 8:30am	Submit draft reference list over Blackboard by 11:59pm
Th, 09/29	Epidemiologic research design	Read Drummond & Murphy-Reyes, Chapter 7 by 8:30am	Submit Journal Club #1 over Blackboard by 11:59pm
T, 10/04	Journal club: quantitative research evaluation	Read Drummond & Murphy-Reyes, Chapter 8	
Th, 10/06	Introduction to qualitative research	Read Drummond & Murphy-Reyes, Chapter 9 by 8:30am	Submit annotated references over Blackboard by 11:59pm
T, 10/11	Qualitative research design	Read Drummond & Murphy-Reyes, Chapter 10 by 8:30am	Submit Journal Club #2 over Blackboard by 11:59pm
Th, 10/13	Journal club: qualitative research evaluation	Read Drummond & Murphy-Reyes, Chapter 11	
T, 10/18	Evidence-based nutrition practice guidelines	Read Drummond & Murphy-Reyes, Chapter 12 by 8:30am	Submit literature review for peer review over Blackboard by 11:59pm
Th, 10/20	The development and use of surveys in research <i>Guest lecturer</i>	Read Drummond & Murphy-Reyes, Chapter 13 by 8:30am	

T, 10/25	Securing grants for Research <i>Guest lecturer: Jeanine Valcour, Grant Proposal Developer</i>	Read Drummond & Murphy-Reyes, Chapter 15 and Assigned literature review for peer review by 8:30am	Submit peer review of literature review over Blackboard by 11:59pm
Th, 10/27	Disseminating research	Read Drummond & Murphy-Reyes, Chapter 14 by 8:30am	
T, 11/01	Catch-up and review, revisions		Submit grant proposal for peer review over Blackboard by 11:59pm
Th, 11/03	Elements of an effective research presentation		Submit Journal Club #3 over Blackboard by 11:59pm
T, 11/08	Journal Club: student-selected article		Submit peer-review of grant proposal over Blackboard by 11:59pm
Th, 11/10	Grant proposal review panel	Read assigned grant proposal by 8:30am	Submit research presentation for peer review over Blackboard by 11:59pm
T, 11/15	Grant proposal review panel	Read selected journal article by 8:30am	
Th, 11/17	Research presentation review	Read assigned research presentation by 8:30am	Submit peer-review of research presentation over Blackboard by 11:59pm
T, 11/22 Th, 11/24	<i>No class, Fall Recess</i>		
T, 11/29	Catch-up and review, prepare for student research presentations		
Th, 12/01	Student research presentations		
T, 12/06	Student research presentations		
Th, 12/08	Student research presentations		
T, 12/13 Th, 12/15	<i>NFS 362 will not have a final exam</i>		