

11:709:481 Seminar in Nutrition (1.5 credit hours)  
Topic: Dietary Protein in Health and Disease  
Mondays, 10:55 am – 12:15 pm  
Hickman Hall Room 132

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Office hours: Fridays 3-4 pm or by appointment

Class Schedule and Outline of Content:

Date	Topic	Resource Folder
8 September	Introduction to Course	1
14 September	The Scientific Literature	2
21 September	Scientific Ethics	3
28 September	Dietary Protein and Metabolic Functions part 1	4
5 October	Dietary Protein and Metabolic Functions part 2 <b>*Deadline for Independent Project Approval*</b>	4
12 October	Group discussion	5
19 October	Group discussion	6
26 October	Group discussion	7
2 November	Group discussion	8
9 November	Group discussion	9
16 November	Group discussion	10
23 November	Group discussion	11
30 November	Student Presentations (final papers due Dec 8)	12
7 December	Student Presentations (final papers due Dec 15) Wrap-up	13

Course description (from catalog): Review of nutrition journals, critical reading in topics in the history of nutrition, and/or specific nutrition problems of current interest.

Course prerequisites: Students enrolled in this course are expected to have completed or are currently enrolled in a basic biochemistry class. This class is best taken in the student's final year of study.

Course objectives:

This undergraduate course is designed to address the intellectual growth needs of students at the advanced or senior level. The objective of the course is to expand and challenge the thought horizons of students through group discussion and independent exploration.

Description of teaching methods and learning experiences:

This course is a '**sem·i·nar**' [sem-uh-nahr], *noun*, defined by Google Scholar as "a class at a college or university in which a topic is discussed by a teacher and a small group of students." Dictionary.com defines 'seminar' as follows:

1. a small group of students, as in a university, engaged in advanced study and original research under a member of the faculty and meeting regularly to exchange information and hold discussions.
2. the gathering place of such a group.
3. a meeting of such a group.
4. a course or subject of study for advanced students.
5. any meeting for exchanging information and holding discussions.

As can be gleaned from the descriptions above, ***the exchange of information through discussion is the primary means by which learning will occur.*** To achieve this, vocal participation by all students in the form of active discussion is necessary. Topics discussed each week will be based on reading materials available on Sakai. Students are expected to read all materials provided before class and come prepared to discuss problems, issues, and implications relating to the material provided. Students must have paper or electronic copies of the material covered that day with them during class.

The secondary means by which learning will occur is through ***engagement in advanced study and original research.*** To achieve this, each student will be asked to perform independent research on an issue or concept relating to dietary protein, discuss their findings with the class and describe their research efforts in a paper. Details about this independent project are provided below.

Methods of student evaluation/grading:

A total of 200 points can be earned throughout this course. Attendance and participation will count for 110 points; successful leading of the group discussion and individual project completion will earn up to an additional 90 points. The grading scale is as follows:

Points	Grade
200-180	A
179-170	B+
169-160	B
159-150	C+
149-140	C
139-120	D
<120	F

### **Attendance and Participation**

Each class is worth 5 points for attendance during weeks 1-14, plus an additional 5 points for participation when not presenting or leading class discussion during weeks 6-14, for a total of 110 points. Missing class for any reason aside from illness is not permitted. A physician's note is required in the case of illness in order to earn attendance credit. If attendance credit is approved by the Professor, participation credit can then be earned by writing a 1 page summary of each assigned reading or class presentation, due by the next class period. A personal circumstance other than illness requires 24 h advanced notice in writing requesting permission to not attend. Written permission must be received from the Professor in order to receive attendance credit. If written permission is received, participation credit can then be earned by writing a 1 page summary of each assigned reading or individual presentation. Students are afforded no more than one opportunity to receive credit for a missed class. There are no opportunities to receive attendance and participation credit for subsequent missed classes, no exceptions.

### **Group Discussions**

This will count 30 points toward the course grade. Discussion of assigned papers will be led by a student who will develop a class presentation and discussion strategy. Power Point or other presentation software should be used to convey the information contained in each paper. The student leader is expected to ask as well as entertain questions from the class to promote discussion of the assigned reading material.

### **Individual Research Presentation and Paper**

This will count 60 points toward the course grade. The student is expected to identify a popular press article published within the last 24 months describing the impact of protein or a component of protein (e.g., amino acid, peptide) on a health-related outcome. Some examples of popular press sources include: Shape magazine, Muscle and Fitness, Prevention magazine, Glamour magazine, Men's Health. The student will then fact-check the statements made in the article with independent research, performing a literature search to identify original science research articles that support and/or perhaps refute the article's main points. In addition, all individuals quoted or interviewed in the article should be fact-checked for educational degrees obtained as well as professional employment and other credentials. **ARTICLE MUST RECEIVE APPROVAL FROM THE PROFESSOR. To receive approval, submit a pdf copy of one or more popular press articles into your Dropbox in Sakai by MONDAY, OCTOBER 5.**

### **The individual paper and in-class presentation must include the following 5 sections:**

Part 1: A short summary of what the lay article proposes or claims. (~ ½ page) The lay article should be placed at the end of the paper in an Appendix.

Part 2: A summary of the professional legitimacy and objectivity of the author and/or quoted experts. What educational degrees have been obtained and where are they from? What professional credentials have been obtained establishing expertise in the topic covered? Who employs the author and quoted/interviewed experts? Is there evidence of "conflict-of-interest"? Provide your assessment of the author's and/or expert's credibility and objectivity. (~1 page)

Part 3: Search the internet for professional advice from reputable sites such as WebMD, USDA, NIH, and other academic institutions. Describe the information found in at least 3 professional sites that support and/or disagree with the lay article. (~1 page)

Part 4: An in-depth exploration into what the hard science reveals. Use PubMed and Google Scholar to perform a literature search to identify original research articles that address the article's claims. Describe the literature search performed (list key words searched), and state the number of articles available in PubMed related to your topic. Identify 2 original research papers that address the claim and analyze the research conducted. State the funding sources of the research chosen and note if any of the co-authors declare a "conflict of interest". (~2 pages)

Part 5: Conclude with personal reflection: how has your independent research journey influenced your opinion of the lay article? Does the issue at hand require more research to resolve? Are you more or less confident of the advice offered in and by the lay press? (~ ½ page)

The in-class presentation should be created in Power Point or Google Presenter and be ~ 15 minutes in length. Each student presentation will be followed by 5 min to answer questions from the class. The research paper (not including references and the original lay article) should be **no more than 5 pages in length, single-sided and double-spaced**. Points will be taken off for going over in length. The original lay article should be included in an Appendix at the end, followed by a list of references (follow formatting described in the “Citations” article posted in Sakai), citing all resources you used throughout the research process. *Submitting a rough draft of the research paper on the day of the in-class presentation is highly encouraged as the Professor will provide you valuable feedback within 48 h.* The final paper is due one week after your class presentation (i.e. the following Monday by 11 am).

**\*\*\*All assignments (presentations and reports) are to be placed into your Dropbox on or before the due date or presentation date. Points will be subtracted for each day late.\*\*\***

**Plagiarism will not be tolerated.** The complete text must be *in your own writing*; credit will NOT be given for text copied from other sources. Papers may be scanned with Turnitin and evidence of duplicating content from other sources will be handled according to the policies in place at Rutgers (<http://academicintegrity.rutgers.edu/policy-on-academic-integrity>).

Required and recommended readings:

The weekly required readings for the course are posted on Sakai within the Resources file. Please check the course site regularly for updates.