

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

SPHE435

Course Summary

Course : SPHE435 **Title :** Advanced Nutrition

Length of Course : 8 **Faculty :**

Prerequisites : SPHE295 **Credit Hours :** 3

Description

Course Description:

This course uses recent advances in nutrition science to investigate the role of nutrients in biochemical, physiological, and hormonal processes within the body and nutrient-disease relationships. (Prerequisite: SPHE295)

Course Scope:

Welcome to SPHE435, Advanced Human Nutrition. *Advanced Human Nutrition* will use recent advances in nutrition science to investigate the role of nutrients in biochemical, physiological, and hormonal processes within the body and nutrient-disease relationships.

Objectives

At the completion of this course, the student will have satisfied the following learning objectives:

- LO1: Demonstrate nutrient metabolism at the cellular level
 - LO2: Describe the metabolic role of nutrients and their complex interrelationships
 - LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
 - LO4: Articulate and explain different perspectives on major controversies in the field of diet and nutrition
 - LO5: Explain the basic concepts of pure and applied nutrition research
 - LO6: Apply health coaching techniques to promote a healthy and balanced diet
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Outline

Week 1: Review of nutrition basics - Digestion and Absorption

Learning Outcome

LO2: Describe the metabolic role of nutrients and their complex interrelationships

Required Readings

Text Readings:

Chapter 1 & 2: Medeiros, DM & Robert E.C. Wildman, R.E. C. Advanced Human Nutrition. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN:9781284123067

Chapter 1: Byerley, LO. Advanced Human Nutrition. Libretext
[https://med.libretexts.org/Courses/American Public University/Advanced Human Nutrition \(Byerley\)](https://med.libretexts.org/Courses/American_Public_University/Advanced_Human_Nutrition_(Byerley))

Other:

Mueller NT, Zhang M, Juraschek SP, Miller ER, Appel LJ. [Effects of high-fiber diets enriched with carbohydrate, protein, or unsaturated fat on circulating short chain fatty acids: results from the OmniHeart randomized trial](#). Am J Clin Nutr. 2020 Mar 1;111(3):545-554. doi: 10.1093/ajcn/nqz322. PMID: 31927581; PMCID: PMC7049528.

Holscher HD. [Dietary fiber and prebiotics and the gastrointestinal microbiota](#). Gut Microbes. 2017 Mar 4;8(2):172-184. doi: 10.1080/19490976.2017.1290756. Epub 2017 Feb 6. PMID: 28165863; PMCID: PMC5390821.

Assignments

- Discussion Post #1
- Quiz # 1: Over assigned readings

Week 2: Carbohydrates: Essential for Our Health

Learning Outcomes

- LO1: Demonstrate nutrient metabolism at the cellular level
- LO2: Describe the metabolic role of nutrients and their complex interrelationships
- LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
- LO4: Explain the basic concepts of pure and applied nutrition research

Required Readings

Readings

Text Readings: Chapters 3 & 4:

Medeiros, DM & Robert E.C. Wildman, R.E. C. Advanced Human Nutrition. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN:9781284123067

In Course Materials: Lesson 2

Assignments

Week 3: Lipids and Proteins

Learning Outcomes

- LO1: Demonstrate nutrient metabolism at the cellular level
- LO2: Describe the metabolic role of nutrients and their complex interrelationships
- LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
- LO4: Articulate and explain different perspectives on major controversies in the field of diet and nutrition
- LO5: Explain the basic concepts of pure and applied nutrition research

Required Readings

Text Readings: Chapters 5 & 6:

Medeiros, DM & Robert E.C. Wildman, R.E. C. Advanced Human Nutrition. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN:9781284123067

In Course Materials: Lesson 3

Assignments

- Discussion Post #3
- Discussion Post #3 Assignment
- Quiz #3: over assigned readings

Week 4: Water, Metabolism, Energy Balance, Body Weight and Composition

Learning Outcomes

- LO1: Demonstrate nutrient metabolism at the cellular level
- LO2: Describe the metabolic role of nutrients and their complex interrelationships
- LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
- LO4: Articulate and explain different perspectives on major controversies in the field of diet and nutrition
- LO5: Explain the basic concepts of pure and applied nutrition research

Required Readings

Text Readings:

- Chapter 7 & 8:

Medeiros, DM & Robert E.C. Wildman, R.E. C. Advanced Human Nutrition. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN:9781284123067

In Course Materials:

Lesson 4

Assignments

- Discussion Post #4
- Discussion Post #4 Assignment
- Quiz #4: over assigned readings

Week 5: Fat-soluble Vitamins - Water-soluble Vitamins

Learning Outcomes

- LO1: Demonstrate nutrient metabolism at the cellular level
- LO2: Describe the metabolic role of nutrients and their complex interrelationships
- LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
- LO4: Articulate and explain different perspectives on major controversies in the field of diet and nutrition
- LO5: Explain the basic concepts of pure and applied nutrition research

Required Readings

Text Readings: Chapter 10 & 11:

Medeiros, DM & Robert E.C. Wildman, R.E. C. Advanced Human Nutrition. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN:9781284123067

In Course Materials: Lesson 5

Assignments

- Discussion Post #5
- Discussion Post #5 Assignment
- Quiz #5: over assigned readings

Week 6: Major Minerals - Minor Minerals

Learning Outcomes

- LO1: Demonstrate nutrient metabolism at the cellular level
- LO2: Describe the metabolic role of nutrients and their complex interrelationships
- LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
- LO4: Articulate and explain different perspectives on major controversies in the field of diet and nutrition
- LO5: Explain the basic concepts of pure and applied nutrition research

Required Readings

Text Readings:

Chapters 12 & 13:

In Course Materials: Lesson 6

Assignments

- Assignment 1
- Quiz #6: over assigned readings

Week 7: Sports Nutrition - Nutraceuticals and Functional Foods

Learning Outcomes

- LO1: Demonstrate nutrient metabolism at the cellular level
- LO2: Describe the metabolic role of nutrients and their complex interrelationships
- LO3: Evaluate scientific evidence related to nutritional needs, requirements, and health issues
- LO4: Articulate and explain different perspectives on major controversies in the field of diet and nutrition
- LO5: Explain the basic concepts of pure and applied nutrition research

Required Readings

Text Readings: Chapters 9 & 14:

Medeiros, DM & Robert E.C. Wildman, R.E. C. Advanced Human Nutrition. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN:9781284123067

Chapter 2: Byerley, LO. Advanced Human Nutrition. Libretext
[https://med.libretexts.org/Courses/American_Public_University/Advanced_Human_Nutrition_\(Byerley\)](https://med.libretexts.org/Courses/American_Public_University/Advanced_Human_Nutrition_(Byerley))

Other:

Charles H Halsted, Dietary supplements and functional foods: 2 sides of a coin?, *The American Journal of Clinical Nutrition*, Volume 77, Issue 4, April 2003, Pages 1001S–1007S,
<https://doi.org/10.1093/ajcn/77.4.1001S>

In Course Materials: Lesson 7

Assignments

- Discussion Post #6
- Discussion Post #6 Assignment
- Quiz #7 over assigned readings

Week 8: Health Coaching to achieve a healthy and balanced diet

Learning Outcome

CO6: Apply health coaching techniques to promote a healthy and balanced diet

Required Readings

Hall K, Gibbie T, Lubman DI. Motivational interviewing techniques - facilitating behaviour change in the general practice setting. Aust Fam Physician. 2012 Sep;41(9):660-7. PMID: 22962639. In Course Materials:

Lesson 8

Assignments

- Assignment 2

Evaluation

The nature of an online course requires a significant amount of independent work. The student will be provided with structure, resources, guidance, and instructor experience for learning the course material. The student, however, is responsible for managing time, completing assignments, forums, and quizzes on time, completing the readings and making inquiries as needed to complete the course effectively. This class is an 8-week course, which means the material must be learned in a short period of time. This requires dedication and diligence on the part of the student.

To help you in your scholarly efforts, the University also maintains and is continually upgrading its online library. This resource is available for both faculty and students and represents state of the art and very comprehensive knowledge base. Please make sure you take advantage of this valuable tool; it is a great place to start any research effort and is available from within the electronic campus.

It is essential for you to check their campus email regularly and posted Professor's summary for each week's work. Additional readings, internet work, and assignments will be posted online at the beginning of each course week. Assignment due dates will be posted with assignment directions. All assignments will have due dates of one week. The student is expected to complete all work on time. As adults, students, and working professionals, I understand you must manage competing demands on your time. Should you need additional time to complete an assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade.

For this course, a "week" is defined as the period from Monday to Sunday. The first week begins on a Monday, 12:01 am EST. Note: The last day of this course will end on a Sunday, 11:59 pm EST. Again, the start and stop time are for Eastern Standard Time.

Due to the busy schedules of the students, all discussion work is asynchronous, meaning you are not required to be online at a specific time with the Professor or other students.

Assessment/Grading

Required & Supplemental Readings: Besides the course textbook, additional readings are required. These are listed in that week's lesson plan. You are expected to know this material, and it will be covered in the quizzes.

Discussion Assignments: There are six one-week discussions. All require an initial post and at least two follow-up posts. Discussions are designed to initiate a dialog between students. Feel free to debate, praise, and share thoughts about the topic with fellow classmates. To respond to a discussion topic, post your response in the discussion section of the classroom. Both the initial post and two follow-up posts will be graded. Each Discussion has a grading rubric that you can find in the resources section of the classroom.

You will be graded based on the provided rubric—these account for 20% of your grade. Also, you will turn in your initial discussion posts #2 to #7 in the assignment area to be graded as an assignment.

Using Turn-It-In for Discussions

*Some instructors may require students to submit their initial **Discussion** posts to Turnitin via the "Assignments" tool in our Brightspace classroom--please check the Discussion Guidelines (Course Overview & Introduction Content area) and/or an Announcement from your faculty to determine if this step is required for this course.*

If this is a requirement in your class, before posting your initial Discussion, you must submit it in the assignment area in a Word file, so its originality can be checked by turnitin.com. Your similarity score will appear in the same place you submit your file. It can take up to 24 hours for a score to return, but usually, it is less than 30 minutes. Before you post your Discussion, make sure your similarity score is less than 15%. If it is greater than 15%, edit/rewrite your discussion, submit it again in the assignment area and check the %.

Repeat this process until your similarity score is less 15%. Then post your Initial Discussion for the week.

Assignments: Two assignments must be completed and uploaded in the Assignment area of the classroom. The grading rubric is provided in the assignment's description. These two assignments are 25% of your grade.

Also, your initial post for discussions #2 to #6 will be submitted in the assignment area and graded as a writing assignment. As an assignment, you will be graded for content and format. You will be graded based on the rubric found in the assignment area. In the discussion area, you will be graded on your participation. These five assignments are 25% of your grade.

Quizzes: There are seven timed quizzes you will complete in this class. They are multiple-choice, short answers, and true/ false. These account for 30% of your grade.

Your final grade is based on the percentage value of each activity. Points are used to assess that percentage only. Discussions = 20%, Assignments = 50%, and Quizzes = 30% for 100% total.

Grading:

Name	Grade %
Week 1	3.33 %
Week 2	3.33 %
Week 3	3.33 %
Week 4	3.33 %
Week 5	3.33 %
Week 7	3.33 %
Quizzes	30.00 %
Quiz 1	4.29 %
Quiz 2	4.29 %
Quiz 3	4.29 %
Quiz 4	4.29 %
Quiz 5	4.29 %
Quiz 6	4.29 %
Quiz 7	4.29 %
Assignments	50.00 %
Week 4: Assignment 1	12.5 %
Week 8: Assignment 2	12.5 %
Initial Discussion for Forum 2	5 %
Initial Discussion for Forum 3	5 %
Initial Discussion for Forum 4	5 %
Initial Discussion for Forum 5	5 %
Initial Discussion for Forum 7	5 %

Materials

Book Title: Advanced Human Nutrition, 4th ed - eBook available in the APUS Online Library

Author: Medeiros, Denis & Wildman, Robert E.C.

Publication Info: Jones & Bartlett Lib

ISBN: 9781284123067

Book Title: Various resources from the APUS Library & the Open Web are used. Please visit [eReserve](#) to locate the course.*

Textbook: Medeiros, DM & Robert E.C. Wildman, R.E. C. *Advanced Human Nutrition*. Fourth Edition. Jones & Bartlett Learning. 2019 ISBN: 9781284123067

Textbook: Byerley, LO. *Advanced Human Nutrition*. Libretext

Week 7: Charles H Halsted, Dietary supplements and functional foods: 2 sides of a coin?, *The American Journal of Clinical Nutrition*, Volume 77, Issue 4, April 2003, Pages 1001S–1007S,

Week 8: Motivational Interviewing as a Health Coaching Technique

<https://www.health.harvard.edu/blog/health-coaching-is-effective-should-you-try-it-2020040819444>

Hall K, Gibbie T, Lubman DI. Motivational interviewing techniques - facilitating behaviour change in the general practice setting. Aust Fam Physician. 2012 Sep;41(9):660-7. PMID: 22962639.

Web Sites:

In addition to the required course texts, the following public domain websites are helpful. Please abide by the University's academic honesty policy when using Internet sources as well. Note: website addresses are subject to change.

Site Name Web Site URL/Address

The OWL at Purdue <http://owl.english.purdue.edu/>

APA Style Homepage <http://www.apastyle.org/index.aspx>

Purdue University Online Writing Lab <http://owl.english.purdue.edu/owl/>

Course Guidelines

Academic Honesty & Personal Integrity

The University System supports and promotes academic honesty and personal integrity. Any form of academic dishonesty has no place in higher education. The University System does not tolerate dishonest efforts by its students. Students who are guilty of academic dishonesty can expect to be penalized. Any student who knowingly assists another student in dishonest behavior is equally responsible. An additional violation of the standards of academic honesty within a course may result in dismissal from the University System. [Click here for the full APUS policy.](#)

In addition to the [university's plagiarism policy](#), students who are found to have submitted materials plagiarized from any online source, such as Course Hero, etc., will be reported to both the [Plagiarism Office](#) and the [Student Conduct Office](#) with the possibility of [failing the course](#) and/or [expulsion](#) from APUS. Use of said materials is [academic dishonesty](#) and will not be tolerated.

Writing Expectations

Students please review forum and assignment rubrics prior to completing each course requirement. As you work with student athletes, other athletic/fitness related personnel, clinical and other situations, you will frequently encounter challenging learning and behavioral situations. The solutions you find to these challenges will often determine success at a personal and program level. Your experiences have led you to certain beliefs; however, these beliefs may not lead to the correct solution in any given circumstance. In simple terms, theory is what generates the practical application you apply to your job. It is theory that helps us analyze our opponent and make determinations on what they are going to do in the future, and it is theory that has been turned into technology that helps us increase quality of life, performance, and competitiveness. Understanding what experts recommend is one very important strategy for you to use. The commitment to apply key theory to your ideas enhances the likelihood that sound judgment drives solutions, not just feelings and beliefs. The application of theory can also help protect you in cases of liability questions.

All written submissions should be submitted in a font and page set-up that is compatible with APA Style (7th Ed.) formatting. It is recommended that students adhere to this consistent format and follow all rules of APA formatting –here are some basics:

Typewritten in double-spaced format with a readable style (Arial or Times New Roman fonts are best) and submitted inside the electronic classroom as instructed by the assignment details (unless classroom access is not possible and other arrangements have been approved by the professor).

Best font sizes: Arial or Times New Roman 12-point font.

1" margins all around (no additional indenting –except 1st line of each paragraph)

Double-spaced throughout paper

Appropriate APA-style formatted in-text citations and reference list

Paper should be written in 3rd person –this means no personal opinions, no sentences with “I” “my” or other 1st person text. These are academic/scientific papers.

Citation and Reference Style

Attention Please: Students will follow the APA (7th Ed.). Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Late Assignment Policy

All dates and times posted are for U.S. Eastern Standard time. It is your responsibility to know how that translates to your time zone and to submit/complete Assignments, Discussions and tests per these posted deadlines. All assignment due dates are posted on the Assignments page.

Students are expected to submit assignments by the due dates listed in the classroom. Late assignments, including but not limited to Assignments, Discussions, posts and responses, quizzes, and exams, may or may not be accepted after the course end date. Submitting an assignment after the due date may result in a penalty of up to 10% of the grade per day late, not to exceed a maximum 50% of the grade. The amount of the penalty is at the faculty member's discretion. Faculty recognize that students have limited time and may be more flexible if potential delays are communicated ahead of time. The University Late Policy can be found in the [Student Handbook here](#).

*Doctoral and Programs with specialty accreditation may have different late policies.

**Students with DSA accommodations may have different late policies applied. For more information regarding our DSA services, please contact DSA@apus.edu.

Netiquette

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and “flaming.” Such activity and the loss of good manners are not acceptable in a university setting – basic academic rules of good behavior and proper “Netiquette” must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the Forum of others.

Humor Note:

Despite the best of intentions, jokes and especially satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add “emoticons” to help alert your readers: ;-), :))

Disclaimer Statement

Course content may vary from the outline to meet the needs of this particular group.

Communications

Student Communication

To reach the instructor, please communicate through the MyClassroom email function accessible from the Classlist of the Course Tools menu, where the instructor and students email addresses are listed, or via the Office 365 tool on the Course homepage.

- In emails to instructors, it's important to note the specific course in which you are enrolled. The name of the course is at the top center of all pages.
- Students and instructors communicate in Discussion posts and other learning activities.
- All interactions should follow APUS guidelines, as noted in the [Student Handbook](#), and maintain a professional, courteous tone.
- Students should review writing for spelling and grammar.

- [Tips on Using the Office 365 Email Tool](#)

Instructor Communication

The instructor will post announcements on communications preferences involving email and Instant Messaging and any changes in the class schedule or activities.

- Instructors will periodically post information on the expectations of students and will provide feedback on assignments, Discussion posts, quizzes, and exams.
- Instructors will generally acknowledge student communications within 24 hours and respond within 48 hours, except in unusual circumstances (e.g., illness).
- The APUS standard for grading of all assessments (assignments, Discussions, quizzes, exams) is five days or fewer from the due date.
- Final course grades are submitted by faculty no later than seven days after the end date of the course or the end of the extension period.

University Policies

Consult the [Student Handbook](#) for processes and policies at APUS. Notable policies:

- [Drop/Withdrawal Policy](#)
- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Academic Dishonesty / Plagiarism](#)
- [Disability Accommodations](#)
- [Student Deadlines](#)
- [Video Conference Policy](#)

Mission

The [mission of American Public University System](#) is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.

Minimum Technology Requirements

- Please consult the catalog for the minimum hardware and software required for [undergraduate](#) and [graduate](#) courses.
- Although students are encouraged to use the [Pulse mobile app](#) with any course, please note that not all course work can be completed via a mobile device.

Disclaimers

- Please note that course content – and, thus, the syllabus – may change between when a student registers for a course and when the course starts.
- Course content may vary from the syllabus' schedule to meet the needs of a particular group.