

# Healthy Aging in the New Millennium

## Course Syllabus

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**Course Number:** GMS6717

**Credit Hours:** Three (3) credit hours

**Course Format:** This online course is tailored for distance learners in an asynchronous format.

### **Course Description:**

This course will build on the behavioral concepts of lifestyle-based intervention discussed in the preceding course. Here, the emphasis will be to examine the underlying biologic and physiologic changes experienced by older adults in response to prominent lifestyle-based interventions, e.g. diet and physical exercise. These changes include adaptations of major organ systems including the musculoskeletal, cardiovascular, pulmonary systems, and nervous systems. Adaptations will be evaluated across the spectrum of physiologic organization, from whole-body to molecular and cellular changes.

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### **Course Objective:**

The objective of this course is to provide the student with an understanding of the biologic and physiologic mechanisms which underlie changes in physical health among older adults in response to the engagement in common lifestyle-based interventions.

### **Learning Outcomes:**

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

1. Discuss the role of lifestyle in the development of age-related conditions and diseases
2. Describe physiologic adaptations to lifestyle intervention from a variety of physiologic perspectives; including various organ systems and organization levels
3. Find, analyze, and summarize pertinent peer-reviewed research literature in this area

### **Course website:**

The course will be delivered entirely via the UF Canvas system at <http://lss.at.ufl.edu>. Weekly homework assignments will be distributed via Canvas, and should be submitted by the student through the Canvas site as instructed.

### **Course Communications:**

The online discussion board can be used to comment on the readings and assignments, ask thoughtful questions, and explore related concepts. You may also use the online discussion board to ask specific questions about course content.

However, questions your individual performance in the class should be sent via email to the

Course Instructor via email at [someya@ufl.edu](mailto:someya@ufl.edu) . All emails will be returned as soon as possible, but please allow 24-48 hours for a response.

**Technical Assistance:**

Please contact the helpdesk between 8 AM and 5 PM ET for assistance with the course web site. For a list of additional student support services links and information please visit: <http://www.distance.ufl.edu/student-services>.

**Learning Resources:**

1. Topic articles will be placed on the course website. The information in these articles is coordinated with online lecture materials and serves as the required text for the course.
1. Other multimedia materials, e.g. videos, PowerPoint slides; will also be provided as appropriate for each module.

**Prerequisite:**

Students must be registered students in good standing at the University of Florida. The course is open to individuals from all disciplines.

**Course Outline and Assignments:**

The course is divided into 15 modules. For each module students will: (1) review the learning objectives, (2) read or view the corresponding learning resources, and (3) complete the corresponding assignment(s).

Course Schedule:

MODULES	OBJECTIVES
<b>Week 1</b> Geroscience: A new approach to healthy aging	Describe the emerging field of “Geroscience” and define the implications for understanding relationships between aging biology and chronic disease in promoting health span
<b>Week 2</b> Prominent Biologic Factors in Aging and Disease	Highlight several key cellular/molecular mechanisms which contribute to biologic aging and several age-related disease processes across various organ systems.
<b>Week 3</b> Sedentary Lifestyle as a Risk to Healthy Aging	Highlight some of the key clinical/pathologic outcomes associated with sedentary behavior among older adults

MODULES	OBJECTIVES
<p><b>Week 4</b></p> <p>Biologic Effects of Physical Activity Interventions</p> <p>Relevant to Physical Function</p>	<p>Survey recent original literature evaluating mechanisms of action related to beneficial health effects of physical activity interventions on physical health.</p>
<p><b>Week 5</b></p> <p>Biologic Effects of Physical Activity Interventions</p> <p>Relevant to Cardiovascular Function</p>	<p>Survey recent original literature evaluating mechanisms of action related to beneficial health effects of physical activity interventions on cardiovascular health.</p>
<p><b>Week 6</b></p> <p>Other Biologic Effects of Physical Activity Interventions Relevant to Healthy Aging</p>	<p>Survey recent original literature evaluating mechanisms of action related to beneficial health effects of physical activity interventions on health in late-life.</p>
<p><b>Week 7</b></p> <p>Unbalanced Diet as a Risk To Healthy Aging</p>	<p>Highlight some of the key clinical/pathologic outcomes associated with unbalanced nutrition among older adults.</p>
<p><b>Week 8</b></p> <p>Biologic Effects of Dietary Interventions Relevant to Physical Function</p>	<p>Survey recent original literature evaluating mechanisms of action related to beneficial health effects of dietary interventions on physical health.</p>

MODULES	OBJECTIVES
<p><b>Week 9</b></p> <p>Biologic Effects of Dietary Interventions Relevant to Cardiovascular Function</p>	<p>Survey recent literature evaluating mechanisms of action related to beneficial health effects of dietary interventions on cardiovascular health</p>
<p><b>Week 10</b></p> <p>Other Biologic Effects of Physical Activity Interventions Relevant to Healthy Aging</p>	<p>Survey recent original literature evaluating mechanisms of action related to beneficial health effects of dietary interventions on health in late-life.</p>
<p><b>Week 11</b></p> <p>Other Lifestyle Risks to Healthy Aging</p>	<p>Highlight other aspects of lifestyle (aside from diet and exercise) which influence overall health among older adults.</p>
<p><b>Week 12</b></p> <p>Clinical and Biologic Effects of Sleep-related Lifestyle Interventions</p>	<p>Survey recent original literature evaluating beneficial health effects of lifestyle interventions intended to improve sleep among older adults.</p>
<p><b>Week 13</b></p> <p>Clinical and Biologic Effects of Lifestyle Interventions to Enhance Social Engagement</p>	<p>Survey recent original literature evaluating beneficial health effects of lifestyle interventions intended to enhance social engagement among older adults.</p>
<p><b>Week 14</b></p> <p>Clinical and Biologic Effects of Lifestyle Interventions To Reduce Psychological Stress</p>	<p>Survey recent original literature evaluating beneficial health effects of lifestyle interventions intended to reduce psychological stress among older adults.</p>

MODULES	OBJECTIVES
<b>Week 15</b>  Multi-modal Interventions	To explore the potential utility of and biologic effects of multi-modal lifestyle-based interventions for maintaining health among older adults.

### Course Requirements/Grading

Each week, students will be required to read a set of materials posted on the course Canvas site. The weekly modules also include videos posted on the course Canvas site that each student will be required to watch. Readings will be taken from relevant journal articles, web sites, and other sources that will be freely accessible to all registered UF students.

#### Weekly assignments:

Each week, students will be expected to submit a project or assignment related to that week's course topic. Point values for each week's assignment will vary but will be stated with each assignment. Assignments will be posted on the course Canvas site. Some assignments will involve discussions among the all students in the class; other assignments will be more individual.

Grades in this class are earned on the basis of points and then converted to letter grades (as shown in this chart). Letter-grade GPA equivalents are shown in the second table below.

<b>Percentage or points earned in class</b>	<b>93%-100%</b>	<b>90%-92%</b>	<b>87%-89%</b>	<b>83%-86%</b>	<b>80%-82%</b>	<b>77%-79%</b>	<b>73%-76%</b>	<b>70%-72%</b>	<b>67%-69%</b>	<b>63%-66%</b>	<b>60%-62%</b>	<b>Be-low 60%</b>					
<b>Letter Grade equivalent</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>D-</b>	<b>E</b>	<b>WF</b>	<b>I</b>	<b>NG</b>	<b>S-</b>	<b>U</b>
	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

## Course Evaluations

At the end of the course, students will be asked to complete the anonymous UF course evaluation. You will receive information about how to complete the course evaluation later in the semester.

### Late Work Policy:

All assignments/projects must be submitted via the deadline provided on the course web site. For assignments that require manual grading (e.g., research papers, projects), unless you have an approved excused absence, a 10% deduction will be applied for each week the assignment is late.

### Copyright Information

Please review the University policy regarding the use of copyrighted materials, which can be found on the Health Science Center Library's web page. <http://guides.uflib.ufl.edu/c.php?g=147422&p=966897>

### Artificial Intelligence (AI) Use Policy

For this graduate level course, GMS6717 Healthy Aging in the New Millennium, it is imperative that all work submitted is your own. The use of AI tools, including but not limited to, generative language models, code generation tools, and automated essay writer, is strictly prohibited for all assignments. Any work found to have been produced with the aid of such AI tools will result in a zero for that assignment. This policy is in place to ensure the integrity of your learning experience and to respect the academic standards of this course. If you have any questions about this policy or need assistance with your work, please do not hesitate to reach out to your instructor.

## University Policy on Accommodating Students with Disabilities:

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student, who must then provide this documentation to the Course Instructor when requesting accommodation. The student must submit this documentation prior to submitting assignments or taking quizzes or exams. Accommodations are not retroactive; therefore, students should contact the Dean of Students Office as soon as possible in the term in which they are seeking accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

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## **University Policy on Academic Misconduct:**

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students/php>.

Students are expected to abide by the University's Academic Honesty Policy, and to adhere to the following pledge:

"We, the member of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

According to the UF Student Guide, Academic dishonesty includes the following:

- Cheating - copying another's work for academic gain.
- Plagiarism - representing another's work as your own.
- Bribery - offering, giving, soliciting, or receiving goods or services of value for academic gain.
- Misrepresentation - altering facts (e.g., signing an absent classmate's name to an attendance sheet).
- Conspiracy - planning with others to commit academic dishonesty.
- Fabrication - making up information to avoid punishment or other difficulty.

## Counseling and Student Health:

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information:

<http://www.counsel.ufl.edu/> or <http://www.health.ufl.edu/shcc/smhs/index.htm#urgent>

Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789.