University of Florida
College of Medicine
Department of Health Outcomes and Biomedical Informatics

GMS 5905: *Sleep and Population Health*
Spring 2026

Instructor: Christopher N. Kaufmann, PhD, MHS
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Credits: 3 credits
Location: MALA 7126
Time: Thursdays 12:50PM
Office hours: By appointment

Course Objectives and Goals

This course will introduce students to the field of sleep and population health, with a focus on the measurement, causes, consequences, and treatment of sleep problems across the life course. Students will gain foundational knowledge of sleep health and common sleep disorders, and explore how sleep intersects with public health, clinical care, and social policy. Topics include sleep measurement tools, the epidemiology of insomnia and sleep apnea, behavioral and pharmacologic treatments, and disparities in sleep outcomes. Through expert-led lectures and a semester-long project, students will apply course content to design a practical sleep health initiative for a specific population, integrating research evidence, implementation strategies, and real-world constraints.

Student Learning Outcomes

By the end of the semester, students will be able to:

1. Describe key concepts in sleep health and the epidemiology of sleep disorders across the life course.
2. Identify and evaluate tools used to measure sleep and sleep-related outcomes in population and clinical research.
3. Compare behavioral, pharmacologic, and device-based treatments for common sleep disorders, and assess their public health relevance.
4. Analyze the impact of social, structural, and policy factors (e.g., school start times, health disparities) on sleep health.
5. Interpret research findings on the connections between sleep and major health outcomes, including cardiovascular and brain health.
6. Develop and present a practical sleep health initiative grounded in research evidence, population needs, and real-world considerations.

Textbook

Weekly readings distributed on the course website.

Evaluation and Grading
Grades will be based on completion of:
1) Weekly project deliverables (15%)
2) Final sleep health initiative plan (35%)
3) Class participation (50%)

Class format each week:
This course meets once a week. Each class is divided into two parts. The first half of class will feature a lecture or discussion led by a guest expert in sleep and population health. These sessions will introduce key concepts and current research related to the week's topic. The second half of class will be devoted to a class discussion of an assigned reading authored/co-authored by a guest lecturer. Attendance, preparation, and engagement are expected each week, as the course is designed to build skills and knowledge progressively over time.

Importance of class attendance and participation:
Attendance and active participation are essential to your success in this course. Because we will be joined by top researchers and clinicians each week, it's important that you come prepared to engage—by asking questions, contributing to discussions, and fully participating in class activities. This is not a course that can be passively observed. ***Participation makes up 50% of your final grade***, which reflects how much I value your presence and contributions. That's a significant portion, and it's intentional. The course is designed to be dynamic and collaborative, and your involvement each week plays a key role in shaping the learning experience for the entire class. Repeated absences or lack of engagement will impact your grade.

Reaction comments:
Students must read the assigned readings prior to attending each class session, and submit 1 single-spaced page (12 points in size) of reactions, thoughts, comments and/or questions on the main issues raised in the readings. Weekly assignments are to be submitted on the Canvas course website by 8:00 a.m. on the day of each class session. Students need to focus on 1) conceptual implications of the readings, 2) what has been learned from each reading and how it relates to the students' area of research, and 3) what is not clear and the need for further discussion.

Sleep Health Initiative Plan and Pitch
This course includes a semester-long project. You will design a Sleep Health Initiative aimed at addressing a specific sleep-related issue in a defined population (e.g., teens, older adults, shift workers, etc.). The goal is to apply course concepts in a practical way by building an intervention or program that could realistically be implemented in a public health, clinical, or community setting. Key components addressed in the plan for the sleep initiative include identifying your target population, selecting relevant sleep measures, reviewing treatments, considering policy or equity implications, and designing outreach materials.

During the final week of class, you will present your plan in a 10-minute presentation (5 minutes Q&A) and submit a final project packet, which includes all written components and one visual

element (e.g., flyer, infographic, or app storyboard) to support your proposal. This project is designed to be creative, collaborative, and grounded in the science and real-world challenges of sleep and population health. Specifics of the plan and pitch will be provided later in the course.

Grades will be assigned as follows:

Letter Grade	*Grade Percentage*
A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
E	59 and below

Dates and Topics

Week	Topic	Guest Speaker	Reading
Overview to Sleep and Population Health			
1 (1/15)	Overview and Foundations of Sleep	Christopher N. Kaufmann, PhD, MHS	None
2 (1/22)	What is Sleep Health?	Daniel J. Buysse, PhD	Buysse DJ. Sleep health: can we define it? Does it matter? *Sleep*. 2014 Jan 1;37(1):9-17.
3 (1/29)	How is Sleep Measured?	Katie L. Stone, PhD	Stone KL, Blackwell TL, Ancoli-Israel S, Cauley JA, Redline S, Marshall LM, Ensrud KE; Osteoporotic Fractures in Men Study Group. Sleep disturbances and risk of falls in older community-dwelling men: the outcomes of Sleep Disorders in Older Men (MrOS Sleep) Study. *J Am Geriatr Soc*. 2014 Feb;62(2):299-305.
Sleep Disorders			
4 (2/5)	Insomnia	Christopher N. Kaufmann, PhD, MHS	Kaufmann CN, Lee S, Berkley AS, Wickwire EM, Neubauer DN, Li J, Spira AP. Diagnosis, treatment, and associated outcomes of later-life insomnia: a narrative review. *Sleep*. 2025 Nov 10;48(11):zsaf192.
5 (2/12)	Sleep Apnea	Christopher N. Kaufmann, PhD, MHS	Young T, Palta M, Dempsey J, Skatrud J, Weber S, Badr S. The occurrence of sleep-disordered breathing among middle-aged adults. *N Engl J Med*. 1993 Apr 29;328(17):1230-5.
6 (2/19)	Narcolepsy	Rakesh Bhattacharjee, MD	Kaufmann CN, Riaz M, Park H, Lo-Ciganic WH, Wilson D, Wickwire EM, Malhotra A, Bhattacharjee R. Narcolepsy Is Associated With Subclinical Cardiovascular Disease as Early as Childhood: A Big Data Analysis. *J Am Heart Assoc*. 2025 Jun 17;14(12):e039899.
Treatments			

7 (2/26)	Pharmacological Treatments: Deprescribing	Constance H. Fung, MD	Fung CH, Alessi C, Martin JL, et al. Masked Taper With Behavioral Intervention for Discontinuation of Benzodiazepine Receptor Agonists: A Randomized Clinical Trial. *JAMA Intern Med*. 2024;184(12):1448–1456.
8 (3/5)	Behavioral Treatments	Emerson M. Wickwire, PhD	Wickwire EM, Jobe SL, Parthasarathy S, Collen J, Capaldi VF 2nd, Johnson A, Vadlamani A, Levri JM, Scharf SM, Albrecht JS. Which older adults receive sleep medicine specialty care? Predictors of being seen by a board-certified sleep medicine provider. *J Clin Sleep Med*. 2020 Nov 15;16(11):1909-1915.
9 (3/12)	Sleep Apnea Therapies	Atul Malhotra, MD	Malhotra A, More S, Alpert N, Pépin JL, Cole KV, Woodford C, Benjafield AV, Cistulli PA, Sterling KL; medXcloud Group. Dose-Response Relationship of Sleep Apnea Therapy and Healthcare Use in Patients with Comorbidities. *Sleep*. 2025 Oct 27:zsaf333.
SPRING BREAK			
Health Outcomes			
10 (3/26)	Sleep and Brain Health	Adam P. Spira, PhD	Spira AP, Gamaldo AA, An Y, Wu MN, Simonsick EM, Bilgel M, Zhou Y, Wong DF, Ferrucci L, Resnick SM. Self-reported sleep and β-amyloid deposition in community-dwelling older adults. *JAMA Neurol*. 2013 Dec;70(12):1537-43.
11 (4/2)	Sleep and Heart Health	Michael A. Grandner, PhD	Lloyd-Jones DM, Allen NB, Anderson CAM, Black T, Brewer LC, Foraker RE, Grandner MA, Lavretsky H, Perak AM, Sharma G, Rosamond W; American Heart Association. Life's Essential 8: Updating and Enhancing the American Heart Association's Construct of Cardiovascular Health: A Presidential Advisory From the American Heart Association. *Circulation*. 2022 Aug 2;146(5):e18-e43.
12 (4/9)	Sleep Across the Life Course	Orfeu M. Buxton, PhD	Ji L, Wallace ML, Master L, Schade MM, Shen Y, Derby CA, Buxton OM. Six multidimensional sleep health facets in older adults identified with factor analysis of actigraphy: Results from the Einstein Aging Study. *Sleep Health*. 2023 Oct;9(5):758-766.
End of Semester			
13 (4/16)	Final Project Presentations	Students	Sleep Health Initiative Pitch Day!

Class Attendance

Class attendance is required, and the success of this class depends on your active engagement in the course. Excused absences follow the criteria of the UFL Graduate Catalogue (e.g., illness, serious family emergency, military obligations, religious holidays), and should be communicated to the instructor prior to the missed class day when possible. UFL rules require attendance during the first two course sessions, and students must also attend all course sessions of student presentations for this class. Missing more than three scheduled sessions will result in a failure. Regardless of attendance, students are responsible for all material presented in class and meeting the scheduled due dates for class assignments. Finally, students must read the assigned readings *prior to* the class meetings, and be prepared to discuss the material.

Use of ChatGPT and Generative AI

Use of ChatGPT and other large language models (LLMs) is allowed and, in fact, encouraged as a way to deepen engagement with course material, explore ideas, and support your learning. These tools can be especially useful for brainstorming, summarizing research articles, explaining complex concepts, and generating drafts for writing assignments or group projects.

However, there are important constraints to be followed in this class:

- You may not use ChatGPT or similar tools to complete graded assignments where original analysis or critical thinking is expected without proper attribution. This includes submitting AI-generated text as your own without meaningful editing or contribution.
- You must cite any substantial text, code, or ideas generated by AI when included in your submissions. A simple acknowledgment like "Draft content initially generated using ChatGPT and revised by the student" is acceptable.
- You are responsible for verifying the accuracy and appropriateness of any content produced by AI. These tools can produce incorrect or biased information.
- Use of generative AI must not interfere with academic integrity. If you are unsure whether a use is acceptable, ask the instructor before submitting your work.
- Note: You will be ***required*** to submit a PDF of a chat transcript of your interactions with Generative AI when submitting your final project.

The goal is for these tools is to support—not replace—your thinking. Used thoughtfully, they can enhance your learning and creativity in this course.

Academic Policies and Resources

The University of Florida has several academic policies and resources available to students, including those applicable to students in this class. Please visit the following website for information: https://go.ufl.edu/syllabuspolicies