From: Weaver, Lindy
To: Reed, Katie

Cc: <u>Cohen, Anya (OSUMC)</u>
Subject: Informational Item CAA

Date: Friday, September 5, 2025 2:09:23 PM

Attachments: Health Sciences Electives Options Additions Sept 2025 To CAA.pdf

Hello Katie,

Please find the following attachment for an informational item to CAA regarding the approval of additional major electives options for our Health Sciences program.

Thank you!

Lindy



College of Medicine School of Health and Rehabilitation Sciences

Division of Health Sciences and Health Information Systems
1170 Graves Hall
333 W. 10th Avenue
Columbus, OH 43210
hrs.osu.edu

July 28, 2025

Dear Committee:

The Health Sciences program in the School of Health and Rehabilitation Sciences would like to add additional major electives course options to both the 1) Patient/Client Elective Options and 2) Science Elective Options. Adding these courses as approved under these options will provide students with increased opportunities for meeting the major electives and these courses will enhance content options in these areas. All courses are existing courses, offered regularly, and we feel meet the major electives of our program.

The courses we would like to add to the approved list are below:

Patient/Client Elective Options

- 1. HTHRHSC 5100: Introduction to Assistive Technology
- 2. HTHRHSC 4530: Nutrition for Fitness

Science Elective Options

HTHRHSC 4200: Scientific Writing
 HTHRHSC 5608: Skeletal Biology

Sincerely,

Stefan A. Czerwinski Ph.D.

Professor and Director

Division of Health Sciences and Health Information Systems

stefan.czerwinski@osumc.edu

-a. Guil



206 Atwell Hall 453 W. 10th Ave. Columbus, OH 43210

614-292-4758 Phone 614-292-0210 Fax

https://hrs.osu.edu/

September 5, 2025

Curriculum Committee
School of Health and Rehabilitation Sciences
The Ohio State University

Dear Dr. Czerwinski,

On September 5, 2025, the HRS Curriculum Committee reviewed the proposal to add additional Health Science major elective course options to the Patient/Client and Science Elective categories. The committee unanimously voted in support of this change.

The approved courses are listed below:

Patient/Client Elective Options

1. HTHRHSC 5100: Introduction to Assistive Technology

2. HTHRHSC 4530: Nutrition for Fitness

Science Elective Options:

1. HTHRHSC 4200: Scientific Writing

2. HTHRHSC 5608: Skeletal Biology

We are grateful for your program's ongoing commitment to teaching excellence. We will notify CAA to make the change official at the university level.

Sincerely,

Lindy Weaver, PhD, MOT, OTR/L

Associate Professor, Clinical Director, Academic Affairs



Course Syllabus

Course Information

Department / Course Number: HTHRHSC 5100

Course Title: Introduction to Assistive Technology

Term: AU 2025

Credit Hours: 3

Faculty Information

Instructor: Van Allen Lemmon, OTD, M.Ed., OTR/L

Department: HTHRHSC

Office Location: 443D

Phone Number: Message me via Carmen Canvas to arrange a meeting via phone

Email: van.lemmon@osumc.edu

Office Hours: By appointment

Class Meeting Schedule

The course is asynchronous. There are no scheduled meetings.

Course Materials / Software

REQUIRED TEXTBOOK (UNDERGRAD AND GRADUATE)

Cook, A.M., Polgar, J.M, Encarnacao, P. (2020). Assistive Technologies: Principles & Practice. 5thEdition, Elsevier.

REQUIRED ARTICLES (UNDERGRAD AND GRADUATE)

Chan M, Zoelick RM. World Report on Disability. World Health Organization; 2011. http://www.who.int/disabilities/world_report/2011/en/

REQUIRED ARTICLES (GRADUATE)

Andrich, R., Mathiassen, N.-E., Hoogerwerf, E.-J., & Gelderblom, G. J. (2013). Servicedelivery systems

for assistive technology in Europe: An AAATE/EASTIN position paper. Technology & Disability, 25(3), 127–146. https://doi.org/10.3233/TAD-130381

Baxter, S., Enderby, P., Evans, P., & Judge, S. (2012). Barriers and facilitators to the use of high-technology augmentative and alternative communication devices: a systematic review and qualitative synthesis. International Journal of Language & Communication Disorders / Royal College of Speech & Language Therapists, 47(2),115–129. https://doi.org/10.111/j.1460-6984.2011.00090.x

Dicianno, B. E., & Tovey, E. (2007). Power mobility device provision: Understanding Medicare guidelines and advocating for clients. Arch Phys Med Rehabil, 88(6), 807-816.4 Gould, M., Leblois, A., Cesa Bianchi, F., & Montenegro, V. (2014). Convention on the rights of persons with disabilities, assistive technology and information and communication technology requirements: where do we stand on implementation? Disability and Rehabilitation. Assistive Technology, 1–6. https://doi.org/10.3109/17483107.2014.979332

Hill, K., Kovacs, T., & Shin, S. (2015). Critical issues using brain-computer interfaces for augmentative and alternative communication. Archives of Physical Medicine and Rehabilitation, 96(3 Suppl), S8-15. https://doi.org/10.1016/j.apmr.2014.01.034

Liu, L., Stroulia, E., Nikolaidis, I., Miguel-Cruz, A., & Rios Rincon, A. (2016). Smart homes and home health monitoring technologies for older adults: A systematic review. International Journal of Medical Informatics, 91, 44–59. https://doi.org/10.1016/j.ijmedinf.2016.04.007

Sprigle, S., & Sonenblum, S. (2011). Assessing evidence supporting redistribution of pressure for pressure ulcer prevention: a review. J Rehabil Res Dev, 48(3), 203–213

Course Description

Students learn how to develop and implement assistive technology (AT) devices and services. Students achieve competency in evaluating clients' technology needs and providing recommendations for appropriate assistive technology to maximize function for individuals living with disability. Students also achieve competency in understanding the assistive technology service delivery process in multiple environments, with a focus on evidence based practice. The course addresses both the pediatric and adult population for the development of AT devices and services. The course includes information on disability, computer access/technology, alternative and augmentative communication, electronic cognitive devices, driver's rehabilitation, low vision technologies, seating and wheeled mobility, electronic activities of daily living, and home automation. The unique needs of children, adults, and older adults are addressed in the home, school, community, and vocational settings. This course begins to lay the foundation for an individual interested in the successful completion of the RESNA Assistive Technology Professional (ATP) certification.

Prerequisites

No Prerequisites

Course Learning Outcomes

By the end of this course, students should successfully be able to:

- Evaluate assistive technology device features to match functional requirements of an individual
- Utilize the key components of the assistive technology framework (e.g. services, devices, strategies, and practices.)
- Understand the assistive technology specific to user input, communication and control.
- Assess the effectiveness of assistive technology specific to user input, communication and control.
- Understand the relationship between the technology and the environment, and how the environment can support the individual

Course Policies

All School and Program course policies apply to this course. <u>HRS Handbooks</u> are available. These provide all required policies and procedures required for students accepted into HRS academic programs.

Students may use <u>Red Button</u> to report academic and learning environment concerns to the School of Health and Rehabilitation Sciences Director for Academic Affairs. You may choose to remain anonymous but if you provide your contact details, individualized follow-up can be provided. When you complete a report with the Red Button System, the Director of Academic Affairs will receive the report and review within 72 hours.

Artificial Intelligence

Students are encouraged to use University-approved AI tools such as Gemini, NotebookLM, and Microsoft Copilot to support their engagement with course content. Engagement with AI refers to exploring, questioning, or enhancing your understanding of material, and must be clearly distinguished from assignment completion. AI cannot be used to generate or paraphrase written work. AI may only be used to complete assignments if expressly permitted by the course instructor. If permission is granted, you must disclose your use in the manner specified by the instructor, and you remain responsible for verifying the accuracy, relevance, and credibility of all sources and content. Finally, AI may not be used to create outlines or provide the starting point for written work, since this would rely on iterations of others' work rather than the student's original contribution.

Course Technology

This course will be conducted in a distance-learning, online format. The structure of the course will be asynchronous, which means learning that takes place without simultaneous instructor—student interaction. All materials will be provided via Carmen and all assignments will be completed via Canvas file upload. All necessary materials will be provided in the content section of Carmen. An <u>online tutorial</u> is available. Notices about this course will be sent to your name.#@buckeyemail.osu.edu account. All students must have an active OSU email account and remain electronically connected to OSU. Emails may be forwarded to an external email address. Please contact the Help Desk for more information.

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. <u>IT support hours are available online</u>, and support for urgent issues is available 24 hours a day, seven days per week.

Self-Service and Chat support: go.osu.edu/IT • Phone: 614-688-HELP (4357)

Email: ServiceDesk@osu.edu • TDD: 614-688-8743

Internet requirements:

Minimum Wi-Fi speed of 3 MB/s is required for using CarmenCanvas to submit assignments, while a minimum 7 MB/s is recommended for Zoom classes, streaming lectures, etc. Students can connect devices to campus wireless internet, eduroam, by navigating to wireless.osu.edu.

Microsoft 365

This course requires students to author documents using Microsoft 365. Students can login to Microsoft 365 via microsoft365.osu.edu. Check the university's IT Service Desk knowledge base article KB04728, FAQ on Office 365 for Students, for information on hardware requirements and instructions for installing the desktop applications.

University Policies

Up to date university academic policies are available from the Office of Undergraduate Education, and these policies apply to this course. You can view the following <u>statements and policies from the Office of Undergraduate Education</u> online:

- Disability Statement (with Accommodations for Illness)
- Grievances and Solving Problems
- Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

Academic Misconduct

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the

University's <u>Code of Student Conduct</u>, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute Academic Misconduct.

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: Any activity that tends to compromise the academic integrity of the University or subvert the educational process. Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so please review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If an instructor suspects that a student has committed academic misconduct in this course, the instructor is obligated by University Rules to report those suspicions to the Committee on Academic Misconduct. If COAM determines that a student violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in the course and suspension or dismissal from the University.

If students have questions about the above policy or what constitutes academic misconduct in this course, they should contact the instructor.

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite, and others. These tools will help shape the future of work, research and technology, but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship, or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-forword use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Religious accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement **and** the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the Civil Rights Compliance Office.

Policy: Religious Holidays, Holy Days and Observances

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

School Specific Grievance and Solving Problems

Please see <u>HRS Student Handbook</u> Policy #20 – Student Appeal Process. In general, a student should meet with the instructor of record for the course first and then, as outlined in Policy #20, a student should then take any problem or grievance to the Division Director.

Conduct in the Classroom and Academic Learning Environment

Students will adhere to the university's <u>Code of Student Conduct</u> at all times. Students in the School of HRS have additional professional requirements for behavior due to the nature of their professional training and the environments in which learning may occur. Please see <u>HRS Student Handbook</u> Policy # 5.

Your Mental Health-Counseling and Consultation Services

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

If you are a student in the School of Health and Rehabilitation Sciences, you may schedule an appointment with our mental health counselors: simply email hrscom.counseling@osumc.edu, indicate which program you are enrolled in and that you are interested in scheduling an initial counseling appointment.

Military Connected Students

The Military and Veterans Services (MVS) Office offers a wide range of resources for military-connected students. Whether using educational benefits or not, all military-connected students are encouraged to learn more about how the university supports military-connected students (i.e., information about tutoring, transition services, access to the veteran's lounge, etc.). For service members, should you receive military orders during the semester or know of classes that will be missed due to service commitments, please speak with your instructor as soon as possible on possible accommodations. MVS contact information: milvets@osu.edu; 614-247-VETS; veterans.osu.edu/; 185 Student Academic Services Building, 281 W. Lane Avenue.

Assignments and Granding Breakdown

Undergraduate grading breakdown

Assignment category	Percentage
Video quiz case studies (4 total)	15%
Video discussion case studies (5 total)	30%
Assistive technology evaluation discussions (5 total)	25%
Quizzes (7 total)	15%
Final Exam	15%
Total	100%

Graduate grading breakdown

Assignment category	Percentage
Case Reports (2 total)	35%
Discussion Moderation Assignment	10%
Assistive technology evaluation discussions (5 total)	25%
Quizzes (7 total)	15%
Final Exam	15%
Total	100%

Grading Scale

<u>A</u>	<u>A-</u>	<u>B+</u>	<u>B</u>	<u>B-</u>	<u>C+</u>	<u>C</u>	<u>C-</u>	<u>D+</u>	<u>D</u>	<u>E</u>
<u>100 -</u>	<u>92.9 -</u>	<u>89.9 -</u>	86.9 -	<u>82.9 -</u>	<u>79.9 -</u>	<u>76.9 -</u>	<u>72.9 -</u>	<u>69.9 -</u>	<u>66.9 -</u>	< 60%
<u>93%</u>	<u>90%</u>	<u>87%</u>	83%	<u>80%</u>	<u>77%</u>	<u>73%</u>	<u>70%</u>	<u>67%</u>	<u>60%</u>	

Attendance / Participation Expectations

Since this is an online course, your attendance is determined by your engagement and participation in online activities. Here's what's expected of you:

You should log in to the Carmen course at least twice each week. (In most weeks, you will likely
log in several times.) If you anticipate missing a full week of class, please notify me in advance or
at your earliest convenience.

Late Assignment Submissions

Students are required to contact the instructor in advance if an assignment they cannot submit the assignment by the due date, otherwise the instructor will not accept the assignment. Late submissions may receive up to 50% credit if submitted within one week of the deadline. After one week, the grade will be recorded as "0."

Instructor Feedback and Response Expectations

I'm providing the following information to detail my availability throughout the course. Please note that you can reach 614-688-HELP at any time if you encounter a technical issue.

- Grading and Feedback: For major weekly assignments, you can generally expect feedback within 7 to 10 days.
- Email: I will respond to Carmen Canvas messaging within 24 hours on days when the university
 is in session. I prefer to communicate via CarmenC anvas messaging, but if you use email,
 please send it from your student account (lastname.#@osu.edu) and include "HTHRHSC 5100"
 in the subject line. I will respond to emails within 72 days when the university is in session.
- Class Announcements: All important class-wide messages will be sent through the Announcements tool in Carmen Canvas. Please check your notification preferences [here](go.osu.edu/canvas-notifications) to ensure you receive these messages.

Copyright

9

©-The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

THIS SYLLABUS, THE COURSE ELEMENTS, POLICIES, AND SCHEDULE ARE SUBJECT TO CHANGE.



COURSE INFORMATION

Department / Course Number: HTHRHSC 5100

Course Title: Introduction to Assistive Technology

Term: AU 2025

Credit Hours: 3

FACULTY INFORMATION

Instructor: Van Allen Lemmon, OTD, M.Ed., OTR/L

Department: HTHRHSC

Office Location: 443D

Phone Number: Message me via Carmen Canvas to arrange a meeting via phone

Email: van.lemmon@osumc.edu

Office Hours: By appointment

COURSE SCHEDULE

Module	Dates	Topics, Readings, Assignments			
1	8/26 – 8/31	Week 1 Topics: Introduction to Assistive Technology Readings: ► Ch 1 & 2 AT:P&P [UG & GRAD] ► Andrich et al. (2013) [Grad] Assignments: ► Video Case Study Discussion #1 [UG] ► Video Case Study Moderation #1 [Grad]			

Module	Dates	Topics, Readings, Assignments
2	9/21 - 9/7	Week 2 Topics: Framework for Assistive Technologies Readings:
3	9/8 - 9/14	Week 3 Topics: Disability and Assistive Technology Service Delivery Readings: ► Ch 6 AT:P&P [UG & GRAD] ► Ch 1 Chan and Zoelick. (2011) [UG & GRAD] Assignments: ► Video Quiz Case Study #1 [UG]
4	9/15- 9/21	Week 4 Topics: User Inputs Readings: ► Ch 7 AT:P&P [UG & GRAD] Assignments: ► Video Case Study Discussion #3 [UG] ► Video Case Study Moderation #3 [Grad]

Module	Dates	Topics, Readings, Assignments		
		Week 5		
		Topics: Control Interfaces		
		Readings:		
5	9/22 - 9/28	► Ch 8 AT:P&P [UG & GRAD]		
		Assignments:		
		► Case Report #1 [Grad]		
		Quiz: Control Interfaces and User Inputs [UG & Grad]		
		Week 6		
		Topics: Computer Access (aka Input Accessibility for Mainstream Information and Communication Technologies)		
	9/29 – 10/5	Readings:		
6		► Ch 9 AT:P&P [UG & GRAD]		
		▶ Hill et al. (2015) [Grad]		
		Assignments:		
		▶ Video Quiz Case Study #2 [UG]		
		► Tech Evaluation Discussion #1 – Computer Access [UG & Grad]		
		Week 7		
		Topics: Sensory Aids for Persons with Visual Impairments		
		Readings:		
		► Ch 16 AT:P&P [UG & GRAD]		
7	10/6 - 10/12	Assignments:		
		Tech Evaluation Discussion #2 – Visual Impairments [UG & Grad]		
		 Quiz: Mainstream ICTs and Sensory Devices for Persons with Visual Impairments [UG & Grad] 		

Module	Dates	Topics, Readings, Assignments
8	10/13 – 10/19	Week 8 Topics: Assistive Technologies for Cognitive Augmentation Readings:
9	10/20 - 10/26	Week 9 Topics: Augmentative and Alternative Communication Readings: ► Ch 18 AT:P&P [UG & GRAD] ► Baxter et al. (2012) [Grad] Assignments: ► Tech Evaluation Discussion #4 – Assistive Technology for Cognitive Augmentation [UG & Grad] Quiz: ATC & AAC [UG & Grad]
10	10/27 - 11/2	Week 10 Topics: Seating Systems Readings: ► Ch 10 AT:P&P [UG & GRAD] ► Sprigle & Sonnenblum (2011) [Grad] Assignments: ► Quiz: Seating Systems [UG & Grad] Tech Evaluation Discussion #5 – Seat Surface and Back Support [UG & Grad]

Module	Dates	Topics, Readings, Assignments
11	11/3 - 11/9	Week 11 Topics: Technologies that Enable Mobility Readings: ► Ch 11 AT:P&P [UG & GRAD] ► Dicianno, B. E., & Tovey, E. (2007) [Grad] Assignments: ► Video Case Study Discussion #5 [UG] ► Video Case Study Moderation #5 [Grad] ► Quiz: Mobility [UG & Grad]
12	11/10 – 11/16	Week 12 Topics: Technologies for Transportation and Driving Readings: ► Ch 12 AT:P&P [UG & GRAD] Assignments: Quiz: Transportation and Driving
13	11/17– 11/23	Week 13 Topics: Enabling Manipulation with Low-Technology Assistive Devices Readings: ► Ch 13 AT:P&P [UG & GRAD] Assignments: ► Video Quiz Case Study #3 [UG] Case Report #2 [Grad]
14	11/24 – 11/30	Thanksgiving No Assignments

Module	Dates	Topics, Readings, Assignments
15	12/1 – 12/7	Week 14 Topics: Electronic Aids to Daily Living Readings: Ch 14 AT:P&P [UG & GRAD] Liu et al. (2016) [Grad] Assignments: Video Quiz Case Study #4 [UG] [Due 7/29]
		Quiz: EADL & Computer Access [UG & Grad] [Due 7/29]
15	12-8 – 12/12	Final Exam

COPYRIGHT

©-The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

THIS SYLLABUS, THE COURSE ELEMENTS, POLICIES, AND SCHEDULE ARE SUBJECT TO CHANGE.



School of Health and Rehabilitation Sciences

COURSE INFORMATION

Department / Course Number: HTHRHSC 4200

Course Title: Analytical Scientific Writing in Health and Rehabilitation Sciences

Term: Spring 2024 Credit Hours: 3

FACULTY INFORMATION

Instructor: Kristen Heitman, PhD, RDN, LD

Grader: Chad Beal

Department: Health Sciences **Office Location**: 228G Atwell Hall

Email: heitman.16@osu.edu; beal.80@osu.edu

Office Hours: By appointment

CLASS MEETING SCHEDULE

This is an online-only asynchronous course. As it is a three-credit hour course, plan to spend at a minimum of nine hours per week completing the activities and content for this course.

COURSE MATERIALS / SOFTWARE

The <u>required textbook can be accessed via university libraries</u> and read online, or you can download each chapter to read offline.

Greenhalgh T. How to Read a Paper: The Basics of Evidence-Based Medicine and Healthcare. 6th edition. Wiley-Blackwell; 2019.

Additional articles will be provided via links to the Health Sciences Library, included in the weekly modules on Carmen.

COURSE DESCRIPTION

This course introduces students to the scientific writing process by exploring data analysis techniques, developing analytical and critical skills to comprehend evidence, synthesizing research design and outcomes, and finally, written communication of the scientific rigor of evidence to advance clinical practice in healthcare.

PREREQUISITES

Completion of first GE writing course.

COURSE LEARNING OUTCOMES

This course meets the GE requirements for the embedded literacies of advanced writing and data analysis.

- 1. Successful students develop advanced skills in inquiry, critical thinking, composing, and communicating for a specific purpose, context and audience using an appropriate genre and modality.
- 2. Successful students apply knowledge of writing and research to specific contexts.
- 3. Successful students develop skills in drawing conclusions and critically evaluating results based on data.

These goals will be achieved after completion of the following Expected Learning Outcomes (ELO):

- 1. Interpret the major components of scientific sources and evidence-based practice.
- 2. Effectively synthesize evidence from relevant evidence-based sources.
- 3. <u>Describe</u> when and why to use citations in scientific writing.
- 4. <u>Develop</u> skills to utilize the resources available for primary and secondary data gathering to support a hypothesis.
- 5. Utilize Zotero or other reference managers to correctly format citations.
- 6. Formulate critical written analyses.
- 7. Write concisely and clearly to an audience of peers.
- 8. <u>Investigate</u> and analyze credible and relevant sources of information.
- 9. Integrate knowledge of the process of evidence-based practice in healthcare topics.

COURSE POLICIES

All School and Program course policies apply to this course. <u>HRS Handbooks</u> are available online. These provide all required policies and procedures required for students accepted into HRS academic programs.

- Written assignments: Your written assignments, including discussion posts, must be your own original work. Where indicated, follow the American Medical Association 11th edition (AMA) style to cite the ideas and words from the sources you are using. You are encouraged to read your own work multiple times to proofread, and to ask a trusted person to proofread your assignments before you turn them in—but no one else should revise or rewrite your work.
- Reusing past work: In general, you are prohibited in university courses from turning in work from a
 past class to your current class, even if you modify it. If you want to build on past research or revisit a
 topic you've explored in previous courses, please discuss the situation with me.

GENERATIVE ARTIFICIAL INTELLIGENCE (AI)

The use of large language models or generative AI (ChatGPT, Google Bard, Bing Chat, Elicit, or any other tool not listed here or not yet published at this time of this syllabus) is **strictly prohibited.** This is a course focused solely on developing your ability to read a text and interpret it, and your ability to form your thoughts into written text and be understood by other people. As such, asking generative AI to summarize any text for you, or to generate any response for you, defeats the purpose of the course and is considered <u>academic misconduct</u>.

In addition, there are <u>privacy and security concerns</u> to take into consideration when using generative AI or large language models. As your instructor for this course, I will not submit your original work to generative AI checkers because they may reuse it in ways that I cannot predict or control.

COURSE TECHNOLOGY

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available online, and support for urgent issues is available 24x7.

Self-Service and Chat support: IT Service Desk • Phone: 614-688-HELP (4357)

Email: 8help@osu.edu • TDD: 614-688-8743

Online Structure: This course will be conducted in a distance-learning, online format. All materials will be provided via Carmen and all assignments will be completed via Canvas file upload. All necessary materials will be provided in the content section of Carmen. An <u>online tutorial</u> is available. Notices about this course will be sent to your name.#@buckeyemail.osu.edu account. All students must have an active OSU email account and remain electronically connected to OSU. Emails may be forwarded to an external email address. Please contact the Help Desk for more information.

UNIVERSITY POLICIES

Up to date <u>university policies</u> are available from the Office of Undergraduate Education, and these policies apply to this course. You can view the following statements and policies:

- Disability Statement
- Excused absence guidelines (COVID)
- Academic Misconduct
- Grievances and solving problems
- Creating an environment free from harassment, discrimination, and sexual misconduct
- Diversity Statement
- Counseling and Consultation Services/Mental health statement
- Lyft Ride Smart

School Specific Grievances and Solving Problems: Please see <u>SHRS Student Handbook</u> Policy # 5 and Policy #20 – Student Appeal Process. In general, a student should meet with the instructor of record for the course first and then, as outlined in Policy #5 and #20, a student should then take any problem or grievance to the Division Director.

Conduct in the Classroom and Academic Learning Environment: Students will adhere to the code of student conduct for The Ohio State University at all times. Students in the School of HRS have additional professional requirements for behavior due to the nature of their professional training and the environments in which learning may occur. Please see SHRS Student Handbook Policy # 6.

YOUR MENTAL HEALTH-COUNSELING AND CONSULTATION SERVICES

The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you are a student in the School of Health and Rehabilitation Sciences, you may schedule an appointment with our mental health counselors: simply email hrscom.counseling@osumc.edu, indicate which program you are enrolled in and that you are interested in scheduling an initial counseling appointment. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at go.osu.edu/ccsondemand. You can reach an on-call counselor when CCS is closed at 614- 292-5766, and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource.

GRADING AND EVALUATION

Assignment	Points
Syllabus Quiz	5
Discussion posts (12 posts at 5 points each)	60
Quizzes (points per quiz vary)	60
Article Reviews (2 reviews at 20 points each)	40
Research Database Search (2 assignments at 25 points each)	50
Branching Activity Paper	25
Too long; didn't read summary	15
Too long; didn't read peer review	15
Final reflection	30
TOTAL COURSE POINTS	300

COURSE ASSIGNMENTS

Details for all assignments will be posted on Carmen.

- 1. **Syllabus Quiz:** At the start of the semester, you are tasked with reading the syllabus and answering questions about the course.
- 2. Discussion posts: 12 weeks of the semester will include a discussion prompt for you to interact with the material, the instructor, and your fellow students. These are meant to be small exercises in developing your writing skills, questions to pose or answer concerning content, or even just getting to know your classmates and the field of healthcare they are pursuing. You must follow guidelines for respectful discussion post conduct posted on Carmen. To receive full points for posting each week, your posts should be well thought out and address the prompt appropriately.
- 3. **Quizzes:** A series of low-stakes quizzes are spread throughout the semester to check your understanding of key concepts in reading, writing, and research within health and healthcare fields.
- 4. **Article Reviews:** Though these are written assignments, the emphasis is on your reading practice. You will be asked to read a provided article multiple times and interpret what you find.
- 5. **Research Database Search:** You will be asked to complete two database searches guided by research questions of your choice. Your *first* database search will involve developing a PICO question, performing a PUBMED search to find one review article and two original articles related to your PICO question. You must define your PICO question, include your initial search terms, altered search terms, and the pathway/process you took to discover the most appropriate articles for your PICO. Please include the title and AMA citation for each article with a brief description of how you might use each article to address your PICO. Your second database search will serve to help develop a second research question of your choice. You will need to follow the same steps as listed above.
- 6. **Branching Activity:** Based on the topic provided, you will take a position on a current health issue and support your argument and counterargument with provided resources.
- 7. **Too Long, Didn't Read Summary:** After learning search strategies, you will select an article of interest to you and write a "too long; didn't read" summary for your classmates. Note, on completion of this assignment, you will then review your classmate's work in the for the tl;dr peer review.
- 8. **Too Long, Didn't Read Peer Review:** Following the submission of the tl;dr summary, you will review a classmate's assignment. Note, your classmate will not assign a grade to you, nor will you assign a grade to your classmate. Rather, you will receive points based on the quality of the feedback that you provide. Rubrics will be provided both for you to use in your review, and to make the expectations for your feedback clear.
- 9. **Final Reflection:** Details of this assignment will be posted on Carmen.

GRADING SCALE Α-B+ В B-C+ C C-D Ε D+ 100-93% 90-92% 87-89% 83-86% 80-82% 77-79% 73-76% 70-72% 67-69% 60-66% 59-0%

ATTENDANCE / PARTICIPATION EXPECTATIONS

Mode of delivery: This course is 100% online.

Pace of online activities: This course is divided into weekly modules that are released at the start of the week on Mondays. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 3-credit-hour course. According to Ohio State policy, students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Attendance and participation requirements: Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- You are expected to log in to the course in Carmen every week. During most weeks you will log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.
- As part of your participation, each week you can expect to post at least once as part of our substantive class discussion on the week's topics.

ABSENCE AND MAKEUP POLICY

Please email <u>both instructors</u> (<u>heitman.16@osu.edu</u> & <u>beal.80@osu.edu</u>) if you are unable to complete weekly modules due to illness or unforeseen circumstances and we'll work together to determine the most appropriate course of action. Note that you must contact us at least 24 hours in advance of the due date.

LATE ASSIGNMENT SUBMISSIONS

Late assignments will not be accepted in this course. If you miss the due date, you may not receive feedback in a timely manner. I reserve the right to adjust this policy and reduce points for submissions past the due date if applicable. If an unforeseen circumstance arises in your life, please email both instructors (
heitman.16@osu.edu & beal.80@osu.edu) at least 24 hours before an assignment is due to discuss the possibility of a due date extension.

INSTRUCTOR FEEDBACK AND RESPONSE EXPECTATIONS

Grading and feedback: For weekly assignments, you can generally expect feedback within **7 days**. For larger assignments, you can expect feedback within **14 days**.

Email: I will reply to emails within **48 hours** on days when class is in session at the university.

COPYRIGHT

©-The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course. THIS SYLLABUS, THE COURSE ELEMENTS, POLICIES, AND SCHEDULE ARE SUBJECT TO CHANGE.

COURSE SCHEDULE

This schedule is subject to change. Any changes to due dates will be communicated in advance.

Week #	Date	Topic	ELO	Readings	Assignments*
1	1/8	Introduction to course and evidence based practice Thinking about your reading practice and writing process	1	Greenhalgh Chapter 1: Why read papers at all? Greenhalgh Chapter 2: Searching the literature	Discussion post 1 Syllabus Quiz
2	1/15	Hierarchy of evidence; fundamentals of database searching; Health Sciences Library resources; PICO development Citations tools and best practices Academic and scientific misconduct	1,3,5	CASP appraisal tools; HSL website guided tours	Discussion post 2 Says/Does Article Review
3	1/22	Research design, article structure Ethos, pathos, and logos in written works	1,2,4	Greenhalgh Chapter 3: Getting your bearings: what is this paper about? Thomas CG. Improve Your Writing Skills. Chapter 16 In: Research Methodology and Scientific Writing. Second edition. Springer; ANE Books; 2021:401-431. https://library.ohio- state.edu/record=b9319539~S7	Discussion post 3 Database search #1
4	1/29	Components of research design; avoiding bias Clear and concise writing	2,7	Greenhalgh Chapter 4: Assessing methodological quality Thomas CG. Use Appropriate Words and Phrases. Chapter 17 In: Research Methodology and Scientific Writing. Second edition. Springer; ANE Books; 2021:433-453. https://library.ohiostate.edu/record=b9319539~S7	Discussion post 4 Practice Quiz Quiz 1
5	2/5	Quantitative data analysis: sensitivity, specificity, accuracy, reliability	4,8	Greenhalgh Chapter 5: Statistics for the non- statistician	Discussion post 5 Database search #2

Week #	Date	Topic	ELO	Readings	Assignments*
6	2/12	Improving your scientific writing skills; scientific style and syntax	7	Greenhalgh Chapter 6: Papers that report trials of drug treatments and other simple interventions Matthews JR, Matthews RW. Improve style and syntax. Chapter 11. In: Successful Scientific Writing: A Step-by-Step Guide for the Biological and Medical Sciences. 4th ed. Cambridge University Press; 2014:141-154. doi:10.1017/CBO9781107587915.012	Discussion post 6 Believer/Doubter Article Review
7	2/19	Quantitative data analysis cont'd; exploring statistics comparing differences in healthcare	1,2	Greenhalgh Chapter 7: Papers that report trials of complex interventions	Discussion post 7 Quiz 2
8	2/26	Scientific writing goals and tone; Turning critical appraisal into your own synthesis of evidence	2, 6,7	Greenhalgh Chapter 8: Papers that report diagnostic or screening tests Greenhalgh Chapter 9: Papers that summarise other papers (systematic reviews and meta- analyses)	Discussion post 8 Branching activity paper
9	3/4	Making comparisons using quantitative data	1	Greenhalgh Chapter 11: Papers that tell you what things cost (economic analyses)	Discussion post 9 Quiz 3
10	3/11	SPRING BREAK			
11	3/18	Qualitative research design and data analysis Integrating qualitative and quantitative analysis: mixed methods	2,7,9	Greenhalgh Chapter 12: Papers that go beyond numbers (qualitative research) Greenhalgh Chapter 13: Papers that report questionnaire research	Discussion post 11 Too long; didn't read summary
12	3/25	Scientific Peer Review Process	5,6,7	Greenhalgh Chapter 14: Papers that report quality improvement case studies	Discussion post 12 Quiz 4
13	4/1	Synthesizing data and writing for results and discussion	2,7,9	Greenhalgh Chapter 10: Papers that tell you what to do (guidelines) Greenhalgh Chapter 16: Applying evidence with patients	Too long; didn't read peer review
14	4/8	Review, reflect & wrap up	8,9	Greenhalgh Chapter 17: Criticisms of evidence- based healthcare	N/A
15	4/15	Open work week			Quiz 5 Final Reflection

^{*}All assignments are due on Sunday evenings at 11:59pm unless otherwise noted



School of Health and Rehabilitation Sciences | Department of Anthropology

COURSE INFORMATION

Department / Course Number: HTHRHSC | ANTH 5608

Course Title: Skeletal Biology

Term: **SP24**Credit Hours: **3**

FACULTY INFORMATION

Instructor: Randee Hunter, PhD Instructor: Mary Beth Cole, PhD

Office Location: 3015 Graves Hall

Office Location: 3187 Graves Hall

Email: Randee.Hunter@osumc.edu

Office Hours: By appointment

Office Hours: By appointment

CLASS MEETING SCHEDULE

Lecture: Mondays and Wednesdays 9:00- 10:20am

Location: Interdisciplinary Health Sciences Classrooms (IHSC) Rm 380

COURSE MATERIALS / SOFTWARE

Required: Burr, D. and Allen, M. Basic and Applied Bone Biology, 2nd edition. ISBN-13: 978-0128132593

Articles associated with each discussion day will be accessible on Carmen

*Chapters will be provided electronically on Carmen along with any additional readings. You do NOT need to purchase the text, but I recommend having it as a lifelong resource!

COURSE DESCRIPTION

This course is a combined level (undergraduate and graduate) course that reviews basic bone biology and demonstrates how understanding the complex multi-scale structure of the skeletal system is essential in application of human health, disease, and behavior. This course is designed to first provide foundational knowledge of bone and in the second portion of the semester, to explore the applications of skeletal biology across many fields. The content of this course is especially applicable to students interested in anatomy, skeletal biology, forensic science, bioarchaeology, paleopathology, and human biology and interdisciplinary explorations of research and discussions in class are encouraged.

PREREQUISITES

None

COURSE LEARNING OUTCOMES

- 1. Develop a foundational knowledge of the biological structure of bone
- 2. Understand the function of the cellular machinery that governs bone
- 3. Apply the hierarchical nature of bone to understanding influences of systemic and mechanical factors
- 4. Outline the basic processes of bone formation, regulation, and loss in multiple contexts
- 5. Discuss skeletal adaptation

COURSE POLICIES

All School and Program course policies apply to this course. <u>SHRS Handbooks</u> are available. These provide all required policies and procedures required for students accepted into SHRS academic programs.

School Specific Grievances and Solving Problems: Please see <u>SHRS Student Handbook</u> Policy # 5 and Policy #20 – Student Appeal Process. In general, a student should meet with the instructor of record for the course first and then, as outlined in Policy #5 and #20, a student should then take any problem or grievance to the Division Director.

Conduct in the Classroom and Academic Learning Environment: Students will adhere to the code of student conduct for The Ohio State University at all times. Students in the School of HRS have additional professional requirements for behavior due to the nature of their professional training and the environments in which learning may occur. Please see SHRS Student Handbook Policy # 6.

COURSE TECHNOLOGY

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available online, and support for urgent issues is available 24x7.

Self-Service and Chat support: IT Service Desk • Phone: 614-688-HELP (4357)

Email: 8help@osu.edu • TDD: 614-688-8743

UNIVERSITY POLICIES

Up to date <u>university policies</u> are available from the Office of Undergraduate Education, and these policies apply to this course. You can view the following statements and policies:

- Disability Statement
- Excused absence guidelines (COVID)
- Academic Misconduct
- · Grievances and solving problems
- · Creating an environment free from harassment, discrimination, and sexual misconduct
- Diversity Statement
- Counseling and Consultation Services/Mental health statement
- Lyft Ride Smart
- Religious Accommodations
 - It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.
 - Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

YOUR MENTAL HEALTH-COUNSELING AND CONSULTATION SERVICES

The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you are a student in the School of Health and Rehabilitation Sciences, you may schedule an appointment with our mental health counselors: simply email hrscom.counseling@osumc.edu, indicate which program you are enrolled in and that you are interested in scheduling an initial counseling appointment. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at go.osu.edu/ccsondemand.

You can reach an on-call counselor when CCS is closed at 614- 292-5766, and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at 1-800-273-TALK or at <u>suicidepreventionlifeline.org</u>. The <u>Ohio State Wellness app</u> is also a great resource.

GRADING AND EVALUATION

All exams and quizzes for this course are considered Independent work and should not involve collaboration between students.

• **Independent Work:** Strictly non-collaborative, original-individual work. You may discuss this assignment only with your instructor. Discussions with other individuals, either in person or electronically, are strictly prohibited.

Assignment Name	Points
Quizzes (UG, G)	100
Attendance (UG, G)	100
Discussion Participation (UG, G)	100
Annotated Bibliography (G only)	100
Discussion Lead (UG, G)	100
Research Paper (UG, G)	125
TOTAL COURSE POINTS	525 (UG), 625 (G)

COURSE ASSIGNMENTS

Quizzes will be proctored through Carmen on their due date. will cover the content presented to you in the foundational lectures each week. Quizzes may also contain questions that ask you to draw on class discussions or additional readings for the week. All **quizzes will be due at 11:59pm** on their due date. They will be timed but you do not need to use Proctorio to complete them.

Discussions will be led by students (or instructor depending on course enrollment) and will require participation. Each week, the assigned students will use additional readings (at least 2 peer reviewed journal articles) beyond the foundational textbook chapter to create **a short oral presentation of content** as well as leading the discussion following their presentation. All other students will be expected to participate in the discussions led by their peers. Depending on class size, undergraduates may be divided into groups for their presentations. Graduate students are expected to guide undergraduates through the content by using discussion provoking/guided questions. All topics with an * are available for student discussion leads (see course schedule).

Annotated Bibliography will be a **graduate student requirement only** but will be disseminated to the class as a useful tool for future reference. Students will be expected to compile 10 sources for their annotated bibliography that covers their chosen topic for the research paper. Annotations should include basic information concerning the article, its relevance to the topic, strengths/limitations, and general findings.

Research Papers will be submitted by **ALL students** in the course and cover a topic related to skeletal biology research at any scale or in any application the student finds interesting. Paper prompts will be posted separately for undergraduates and graduates outlining requirements. **See Attachment B for prompt and rubric.**

GRADING SCALE

А	A-	B+	В	B-	C+	С	C-	D+	D	Е
100 -93 %	90-92%	87-89%	83-86%	80-82%	77-79%	73-76%	70-72%	67-69%	60-66%	59- 0%

COURSE SCHEDULE

Weeks	Topic	Textbook Readings	Quizzes	Assignments
	Bone Morphology and	Ch.1		
1	Organization			
	Bone quality and strength		-	-
	Basic Bone Biology: Osteoblasts			
2	and Osteoclasts	Ch.3	Quiz 1	_
2	Basic Bone Biology: Osteocytes	CII.5	Quiz I	_
	and BMU			
	Bone Formation and Maintenance:			_
3	Ossification and Modeling	Ch.5	Quiz 2	
	Bone Formation and Maintenance:	66	S 0.12 =	-
	Remodeling			
	Changes across the lifespan:			-
4	Growth and Development*	Ch.10	Quiz 3	
	Changes across the lifespan:			-
	Aging* Methods for studying bone			Submit potential
	structure and function (clinical	Ch. 6		paper topics
	imaging, bloodwork, etc.)	CII. 0		(Carmen)
5	Methods for studying bone		Quiz 4	(carrieri)
	structure and function (high		QUIZ	
	resolution imaging,	XXX		
	histomorphometry)			
		Ch. 15		Response to Dr.
	Hormonal Effects on Bone: Sex			Hunter's
6	steroids, PTH, calcitonin*		Quiz 5	comments on
			Quiz 3	paper topic
	Hormonal Effects on Bone: IGF-	Ch.15		_
	1/GH, Thyroid hormones*			
	Mechanical Adaptation: Basics of			-
_	Biomechanics	Ch 44	O:- C	
7	Mechanical Adaptation:	Ch.11	Quiz 6	
	Mechanostat, Functional Adaptation*			-
	Muscle-Bone Unit: Basic concepts			_
8	Muscle-Bone Unit: Effects of	Ch.16	Quiz 7	
	physical activity*	C11.10	Quiz 7	-
	p.,,		Quiz 7:	
	Nutrition and Bone	Ch.14	Annotated Bib	-
9			(G)	
	Diabatas and Bana*	Ch 22		Submit finalized
	Diabetes and Bone*	Ch.23	Quiz 8	paper topic

10	Spring Break	No Classes	No Classes	-			
	Obesity and Bone*	1		-			
11	Osteoimmunology*	Ch.17	Quiz 9	Submit journal articles for research paper			
12	Applications of Skeletal Biology: Forensic/Bioarchaeology*	-	-	-			
12	Applications of Skeletal Biology: Fragility/Fracture Risk*	-	-	-			
13	Clinical: Pharmaceutical treatments*	Ch.21	-	-			
15	Clinical: Microbiome and future treatments*	Ch.19	-	-			
	Current Research at OSU	-	Quiz 10	-			
	"In a Perfect World Research Design" Group Project (in-class)						
14	If there were no money or time concerns, work in your interprofessional groups to come up with						
	a research question, methodology, and potential outcomes. Small presentations (~10). More						
	details provided in class.						
15	Research Papers Du	ue (and annotated bib	liographies for Grad	ls)			

^{*}available for student discussion leads

ATTENDANCE / PARTICIPATION EXPECTATIONS

Attendance is not mandatory; however, lectures will include supplemental material and presentation of material in different ways that stimulate discussions. Students will be responsible for this content on quizzes and incorporating these concepts into their research paper. **Discussion points** will be awarded based upon engagement in the course and respectful and thought-provoking exchanges between students as peers and with the instructors requiring in-person attendance.

ABSENCE AND MAKEUP POLICY

There is no need to "makeup" any missed lectures. However, I **HIGHLY** encourage you to review the material and contact me with any questions you might have regarding the content!

LATE ASSIGNMENT SUBMISSIONS

Late quizzes will <u>not</u> be accepted. I will remind you in class as well as Carmen due date reminders. Please stay on top of your due dates!

INSTRUCTOR FEEDBACK AND RESPONSE EXPECTATIONS

Email Response: I will attempt to respond to your email as soon as possible depending on urgency of the question. In most cases, I will respond within 24 hours of your initial email. I encourage you to re-email me if you have not heard from me within 24 hours! I check my Randee.Hunter@osumc.edu email most frequently.

Graded Materials Return: Carmen will immediately grade your quizzes and exams; however, I re-grade the "fill in the blank" answers to correct for variations in wording or spellings. I will complete this within 72 hours for the "final" grade for each quiz or exam.



COURSE INFORMATION

HTHRHSC 4530

Nutrition for Fitness

Summer 2024

UG 3 credit hours

FACULTY INFORMATION

Instructor: Brooke Starkoff, PhD, RDN, LDN (they/them)

Department: Health Sciences

Office Location: 228N Atwell Hall

Email: brooke.starkoff@osumc.edu

Office Hours: Please email for appointment via Zoom or in-person

ONLINE COURSE STRUCTURE

This course is offered online-only, in an asynchronous format. New content and assignments are posted weekly. All materials will be provided via Carmen and all assignments will be completed via CarmenCanvas file upload. All necessary materials will be provided in the modules section of Carmen. Click here for a <u>Carmen tutorial</u>. Notices about this course will be sent to you via Carmen announcements. You may <u>adjust your notification settings</u> to forward notifications to the email of your choice. Please contact the <u>OSU IT Help Desk</u> for more information.

COURSE MATERIALS / SOFTWARE

Required textbook:

Fink, H. H., & Mikesky, A. E. (2024). Practical applications in sports nutrition. 7th edition. Jones & Bartlett Learning.

Other course-related readings, videos, and audio clips will be posted on Carmen.

• Additional research will be required according to the needs of specific assignments.

Internet requirements:

Students can connect devices to campus wireless internet by navigating to wireless.osu.edu.

Microsoft 365:

This course requires students to author documents using Microsoft 365. Students can login to Microsoft 365 via microsoft365.osu.edu. Check the university's IT Service Desk knowledge base article KB04728, FAQ on Office 365 for Students, for information on hardware requirements.

Your assignments are *required* to be in Microsoft word or Excel, depending on the assignment.

COURSE DESCRIPTION

Introduction to the basic principles of nutrition as they relate to exercise performance and body composition of athletes and the physically active.

PREREQUISITES

3 credit hours in Biology or Chemistry, and EEOB 2520 or Physio 3200 or equivalent.

COURSE LEARNING OUTCOMES

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

- 1. Identify the role of various macronutrients and micronutrients in health and disease.
- 2. Contrast the role of various macronutrients and micronutrients in human performance.
- 3. Explain differences between low intensity and high intensity activities in terms of metabolic pathways and fuels.
- 4. Identify current principles for maintaining proper hydration during exercise.
- 5. Describe the components of weight management, including weight loss, weight gain, and factors impacting metabolism.
- 6. Evaluate the quality of nutrition information or research as it relates to nutrition for fitness and performance.
- 7. Systematically evaluate a purported ergogenic aid for safety, purity, and efficacy.

COURSE POLICIES

All School and Program course policies apply to this course. <u>SHRS Handbooks</u> are available. These provide all required policies and procedures required for students accepted into SHRS academic programs.

Online Structure: This course will be conducted in a distance-learning, online format. All materials will be provided via Carmen and all assignments will be completed via Canvas file upload. All necessary materials will be provided in the modules section of Carmen. An online tutorial is available. Notices about this course will be sent to your name.#@osu.edu account. All students must have an active OSU email account and remain electronically connected to OSU. Emails may be forwarded to an external email address. Please contact the Help Desk for more information.

Pace of online activities: This course is divided into weekly modules that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 3-credit-hour course. According to <u>Ohio State policy</u>, students should expect around 3 hours per week of time spent on direct instruction (such as instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of average.

Attendance and participation requirements: Your attendance is based on your online activity and participation. The following is a summary of your expected participation:

- Participating in online activities for attendance: At least once per week
 You are expected to log in to the course in Carmen every week (most weeks, you will likely log in many times). If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.
- Office hours and any potential live sessions: Optional
 All live, scheduled events for the course, including my office hours, are optional.
- Participating in discussion forums: Throughout the semester
 There are many weeks throughout the semester that you are expected to not only post in the discussion forum, but also interact with your peers. This interaction contributes to a portion of your grade and should include in-depth responses.

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

• Writing style: While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using proper grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.

- Tone and civility: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across as intended online.
- **Citing your sources**: When we have academic discussions, please cite your sources to back up what you say using APA format. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

COURSE TECHNOLOGY

Notices about this course will be sent to your name.#@buckeyemail.osu.edu account. All students must have an active OSU email account and remain electronically connected to OSU. Emails may be forwarded to an external email address. Please contact the Help Desk for more information.

Students need to have a working knowledge of computers and the internet to be successful in this course. A tutorial is available at https://ocio.osu.edu/audience/students. All students are required to utilize Carmen, the OSU course management system. Pertinent course information will be posted throughout the semester on the course website.

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available <u>online</u>, and support for urgent issues is available 24/7.

Self-Service and Chat support: IT Service Desk • Phone: 614-688-HELP (4357)

Email: 8help@osu.edu • TDD: 614-688-8743

UNIVERSITY POLICIES

Up to date <u>university policies</u> are available from the University and these policies apply to this course. You can view the following statements and policies below as well.

- Disability Statement
- Academic Misconduct
- Grievances and solving problems
- Creating an environment free from harassment, discrimination, and sexual misconduct
- Diversity Statement
- Religious Accommodations
- Counseling and Consultation Services/Mental health statement
- Campus Free Speech Policy

DISABILITY STATEMENT

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process (<a href="style="style-type: style-type: styl

RELIGIOUS ACCOMODATION

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief. Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed. For more information about religious accommodations at Ohio State, visit odi.osu.edu/religious-accommodations.

ACADEMIC INTEGRITY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute Academic Misconduct.

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: Any activity that tends to compromise the academic integrity of the University or subvert the educational process. Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

DIVERSITY

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. To learn more about diversity, equity, and inclusion and for opportunities to get involved, please visit:

- https://odi.osu.edu/
- https://odi.osu.edu/racial-justice-resources
- https://odi.osu.edu/focus-on-racial-justice

http://mcc.osu.edu/

GRIEVANCE

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department. All School and Program course policies apply to this course. SHRS Handbooks are available- Policy covers HRS Grievance policy. These provide all required policies and procedures required for students accepted into SHRS academic programs.

CREATING AN ENVIRONMENT FREE FROM HARASSMENT, DISCRIMINATION AND SEXUAL MISCONDUCT

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

- Online reporting form at equity.osu.edu,
- Call 614-247-5838 or TTY 614-688-8605,
- Or Email <u>equity@osu.edu</u>

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual
 misconduct as soon as practicable but at most within five workdays of becoming aware
 of such information: 1. Any human resource professional (HRP); 2. Anyone who
 supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty
 member.

YOUR MENTAL HEALTH-COUNSELING AND CONSULTATION SERVICES

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24-hour emergency help is also available by dialing 988 to reach the Suicide and Crisis Lifeline. If you are a student in the School of Health and Rehabilitation Sciences, you may schedule an appointment with our mental health counselors: simply email hrscom.counseling@osumc.edu, indicate which program you are enrolled in and that you are interested in scheduling an initial counseling appointment.

CONTENT WARNING

Some content in this course may involve content that may elicit a traumatic response in some students due to discussion on eating disorders If needed, please take care of yourself while

watching/reading this material (leaving classroom to take a water/bathroom break, debriefing with a friend, contacting a confidential Sexual Violence Advocate 614-267-7020, or <u>Counseling and Consultation Services</u> at 614-292-5766 and contacting the instructor if needed). Expectations are that we all will be respectful of our classmates while consuming this media and that we will create a safe space for each other. Failure to show respect to each other may result in dismissal from the class.

SCHOOL SPECIFIC GRIEVANCES AND SOLVING PROBLEMS

Please see <u>HRS Student Handbook</u> Policy #20 – Student Appeal Process. In general, a student should meet with the instructor of record for the course first and then, as outlined in Policy #20, a student should then take any problem or grievance to the Division Director.

Students will adhere to the code of student conduct for The Ohio State University at all times. Students in the School of HRS have additional professional requirements for behavior due to the nature of their professional training and the environments in which learning may occur. Please see HRS Student Handbook Policy # 5.

CAMPUS FREE SPEECH POLICY

Our <u>Shared Values</u> include a commitment to diversity and innovation. Pursuant to these values, the university promotes a culture of welcoming differences, making connections among people and ideas, and encouraging open-minded exploration, risk-taking, and freedom of expression. As a land-grant institution, the university takes seriously its role in promoting and supporting public discourse. To that end, Ohio State is steadfastly committed to protecting the First Amendment right to free speech and academic freedom on its campuses, and to upholding the university's academic motto — "Education for Citizenship." The <u>Campus Free Speech policy</u> adopted in May supports this commitment.

GRADING AND EVALUATION

Graded assignments may come in three forms, and students should note the expectations for each in the descriptions of our class assignments below.

Assignment type:

- **Independent Work:** Strictly non-collaborative, original-individual work. You may discuss this assignment only with your instructor. Discussions with other individuals, either in person or electronically, are strictly prohibited.
- **Collaboration Required:** An explicit expectation for collaboration among students either in-class or outside (i.e., group work).

• **Optional-Collaboration:** Students are permitted, but not required, to discuss assignments or ideas with each other. However, all submitted work must be one's original and individual creation.

COURSE ASSIGNMENTS						
Assignment Name	Points	Assignment Type				
Syllabus Quiz	5	Independent				
Online pre-quizzes (7 @ 5 pts. each)	35	Independent				
Social Media Analysis	10	Independent				
Worksheets (9 @ 10 pts. each)	90	Independent				
Group Discussion posts (8 @ 5 pts. each)	40	Collaboration				
 Athlete-Specific Training Plan: Selecting your athlete (5 pts.) Athlete profile (20 pts.) Macronutrient assessment (25 pts.) Micronutrient assessment (25 pts.) Supplement assessment (25 pts.) Final nutrition plan presentation (50) 	150	Collaboration				
Exams (2 @ 70 pts. Each)	140	Independent				
TOTAL COURSE POINTS	470					

Syllabus quiz: Online quiz to ensure you reviewed the syllabus!

Pre-quizzes (7): These quizzes are designed to be sure you have a basic level of nutrition understanding for that upcoming module. These occur during weeks 2 - 8 and should be completed before reading the chapter. You are to work on these quizzes on your own and are permitted to repeat them as many times as you need to get a perfect score (5/5). If you score less than a 3 on these short quizzes, you should use the remediation materials provided to help you get a better understanding of the basics before you move into the course lecture materials.

Social media analysis: While social media can be a powerful tool for receiving and sharing information, it can also lead to a lot of misinformation and confusion. Many people currently receive their fitness and nutrition information from social media. For this introductory assignment, we'll take a critical look at some of the claims from social media influencers. This assignment will require you to do some research using the OSU Libraries.

Worksheets (9): Most weeks, you will complete a worksheet that helps bring the material together. I recommend having the worksheet available while reading the chapters and watching the lecture videos to better answer the questions. HOWEVER, not all the answers will come directly out of your text; many assignments will require you to find solutions from other evidence-based, scientific sources.

Athlete-specific nutrition plan: For this final project, you will work individually or in small groups of up to four people to design a nutrition plan for an athlete of your choosing. You will create an athlete profile, including age, sex, sport and specific position in that sport, training intensity, goals, and dietary preferences. You will need to utilize the principles of sports nutrition, scientific research, and critical thinking to develop a comprehensive nutrition plan that addresses the specific needs and goals of the athlete. The project has been broken up into smaller assignments that are due throughout the semester. These components are as follows:

- Athlete selection create project groups and decide on athlete (Week 1)
- Athlete profile an initial consultation with your athlete determining current goals, habits, nutrition, fitness level, activity, etc. (Due Week 2)
- A macronutrient assessment based (Due Week 4)
- A micronutrient and water assessment (Due Week 7)
- A supplement analysis (Due Week 9)
- Final presentation and plan (Due Week 12)

Midterm and Final Exam: Both exams will include questions from the previous modules. You will have 80 minutes to complete both and may not use any resources (no textbooks, no internet, no AI, no other humans, etc.). Only a calculator will be permitted.

Group Discussion Posts (8): Most weeks, you will work together in your assigned groups to answer a hypothetical sports nutrition question. Each week, someone in the group will be the leader (everyone must be the leader at least 2x in the semester) and will post the initial response to the question by Wednesday. Following this, the rest of the group will provide feedback and assist in corrections prior to submitting the final submission by Sunday at 11:59 pm.

Extra credit: Nope. You have plenty to do to keep busy and get a good grade in the course.

Full descriptions for each assignment and its requirements are available on Carmen.

0.0			\sim	
(- 2 /	ADIN	11-	<i>1</i> / / /	1 -
UIV	יווטר	\mathbf{u}	ᇅ	ᆫᆫ

А	A-	B+	В	B-	C+	С	C-	D+	D	Е
> 94%	93% to 90%	89% to 87%	86% to 83%	82% to 80%	79% to 77%	76% to 73%	72% to 70%	69% to 67%	66% to 60%	<60

Late assignments will be accepted at the discretion of Dr. Starkoff. The penalty for late assignments is 10% deduction per day late.

I will round your final grade to the nearest whole number (e.g., 92.5% = A; 92.4% = A-).

LATE ASSIGNMENT SUBMISSIONS

Late assignments are not accepted unless discussed with the instructor ahead of time.

Assignments submitted past the deadline will be deducted 10% per day it is late. For example, a 20-point assignment submitted any time on Monday will receive a maximum of 18/20; one submitted any time on Tuesday will receive a maximum of 16/20. Canvas sends a confirmation email to students when assignments are successfully uploaded - if you do not receive confirmation check Canvas.

Tests and quiz windows will be strictly enforced.

COURSE SCHEDULE

This is the plan for the summer semester of 2024 but please, always check Carmen. As this course is entirely online, Carmen will always be the most up-to-date on all assignments, readings, and activities. Any changes to due dates will be announced via Carmen announcements.

Week #	Dates	Topics	Readings	Assignments Due ALL ASSIGNMENTS DUE BY SUNDAY @ 11:59 pm
1	5/7 (t) – 5/12	Introduction to Sports Nutrition	Chapter 1	Syllabus and course policies quiz

				Group Discussion: Group Introductions Athlete-specific project: Athlete selection
2	5/13 – 5/19	Carbohydrates	Chapter 3	Online pre-quiz: Carbohydrates Worksheet: CHO and fiber for athletes Social media analysis Athlete-specific project: Athlete profile
3	5/20 – 5/26	Fat	Chapter 4	Online pre-quiz: Fat Worksheet: Fat intake for athletes Group Discussion: Fat
4	5/27 – 6/2	Protein	Chapter 5	Online pre-quiz: Protein Worksheet: Protein intake for athletes Athlete-specific project: Macronutrient assessment
5	6/3 – 6/9	Vitamins	Chapter 6	Online pre-quiz: Vitamins Group Discussion: Vitamins Worksheet: Vitamins

6	6/10 – 6/16	Minerals	Chapter 7	Online pre-quiz: Minerals Worksheet: Minerals
				Online pre-quiz: Hydration
7	6/17 – 6/23	Water	Chapter 8	Athlete-specific project: Micronutrient and water assessment
				Group Discussion: Water
				Midterm
8	6/24 –	Ingestion to energy metabolism	Chapter 2	Online pre-quiz: Digestion
	6/30			Worksheet: Digestion and bioenergetics
9	7/1 – 7/7	1 – 7/7 Ergogenic aids	Chapter 9	Athlete-specific project: Supplements
	, ,	0.0.		Group Discussion: Supplements
10	7/8 – 7/14	Weight management	Chapter 11	Worksheet: Body composition and needs
	//14			Group Discussion: Body Comp
11	7/15 – 7/21	Endurance	Chapter 12	Worksheet: Daily calorie and macro needs for endurance

				Group Discussion: Endurance Athletes
12	7/22 – 7/26 (F)	Strength athletes	Chapter 13	Worksheet: Gaining weight Group Discussion: Strength Athletes Athlete-Specific Project: Final plan
Exam Week	7/29 – 7/31	Final Exam Due by Wednesday, July 31 st		Opens Monday 7/29 – complete by Wednesday 7/31

INSTRUCTOR FEEDBACK AND RESPONSE EXPECTATIONS

You can expect a response from Dr. Starkoff within 1 business day. For the fastest turnaround, please send Dr. Starkoff a message via email at brooke.starkoff@osumc.edu. You can expect assignments to be graded within 7 days of their submission, with longer turnaround times for larger pieces of the grant proposal project. For the discussion boards, you can expect to see Dr. Starkoff responding throughout the week that the discussion is open.

COPYRIGHT

©-The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

THE SYLLABUS, COURSE ELEMENTS, POLICIES, AND SCHEDULE ARE SUBJECT TO CHANGE.