

University of Florida
College of Public Health & Health Professions Syllabus
HSC4930 (30688): Wearable Technology, Robotics, and Artificial Intelligence for Health
(3 credit hours)
Semester: Spring 2024
Location: HPNP G-301A
Delivery Format: On-Campus (In-person) & Blended Learning

INSTRUCTORS

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Preferred communications: Messages via Canvas, UFL email

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Preferred communications: Messages via Canvas, UFL email

PURPOSE AND OUTCOMES

Prerequisites: PSY2012 or equivalent or permission from the instructor. This course is open to all PPHP undergraduate students. Undergraduate students from other colleges are invited to register with the approval of the instructor.

Course Overview

This course explores wearable technology, robotics, and artificial intelligence (AI) integration in health. Students will gain an in-depth understanding of how these technological advancements are revolutionizing health, improving patient care, and enabling health professionals to deliver more efficient and effective services. Students will learn through lectures, hands-on exercises, field trips, and discussions.

Relation to Program Outcomes

This course was designed to meet several Student Learning Outcomes (SLOs) outlined in the Bachelor of Health Science degree in the College of Public Health and Health Professions at the University of Florida.

- Students will explore the landscape of healthcare technology and understand the structure of the US healthcare system
- Students will describe major chronic illnesses and disabilities and leverage technology for chronic disease management
- Students will describe public health core functions and their intersection with technology
- Students will apply knowledge and core bioethical principles in wearables, robotics, and AI healthcare applications

Course Objectives and/or Goals

By completion of this course, a student will be able to:

- Assess the specific integration pathways of wearable technology, robotics, and artificial intelligence within the US healthcare system, quantifying their impacts on healthcare delivery and patient outcomes.
- Evaluate and quantify the effectiveness of wearable technology, robotics, and AI in preventing, managing, and enhancing the quality of life for individuals with major chronic illnesses and disabilities.
- Quantify and assess the precise role and impact of wearable technology, robotics, and AI in facilitating data collection, surveillance methods, and interventions to address public health challenges.
- Evaluate and quantify the ethical dilemmas and privacy concerns linked to the integration of wearable technology, robotics, and AI in healthcare, while making responsible innovation decisions guided by bioethics principles.
- Demonstrate proficiency in effectively conveying complex technical information pertaining to wearable technology, robotics, and AI within healthcare domains, ensuring clarity and comprehension among patients, colleagues, and stakeholders.

Instructional Methods

The course will include in-person sessions once per week, about half lectures and half with hands-on in-class sessions and two field trips to experience the technologies. Students will explore the latest research in wearables, robotics, AI, and health design. Course materials and assignments may include homework with quizzes and short questions, critical reading of scientific papers and reflections from field trip observations and interactions, and a final project and presentation. Teaching materials/links will be posted online. All course slides will be made available online for download. The material (including this syllabus) will be processed through SensusAccess to ensure it complies with Federal, State, and University accessibility policies and governance.

Blended Learning

What is blended learning and why is it important?

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you?

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

Week	Date	Topic	Readings (full citations in the end)	Assignment
1	Jan-10	Lecture: Course introduction and overview Activities: Form the group and develop the clinical questions	Izmailova et al., 2018 Garci-Gonzalez et al., 2022	HW 1 out
2	Jan-17	Lecture: Introduction to Wearable Technology, Robotics, and AI Activities: Interactive learning of the technologies	Maddox et al., 2019 Wu and Luo, 2019 Kyrarini et al., 2021	HW1 due (1/16); HW2 out
3	Jan-24	Lecture: Chronic Illnesses, Disabilities, and Technological Solutions Activities: Brainstorming and pitching the project ideas	Phillips et al., 2018 Di et al., 2021	HW2 due (1/23); HW3 out
4	Jan-31	Lecture: Public Health Core Functions and Their Intersection with Wearable Technology, Robotics, and AI Activities: Design Thinking Workshop	Yang et al., 2020 Sathvik et al., 2022 Luxton and Riek, 2019	HW3 due (1/30)
5	Feb-7	Field Trip 1		
6	Feb-14	Lecture: Wearable Technology in Healthcare Activities: Experience the wearables	Mizuno et al., 2021 Tran et al., 2019 Shi et al., 2020	Field Trip 1 reflex due (2/13); HW 4 out
7	Feb-21	Lecture: Robotics in Healthcare Activities: Experience the robotics	Varghese et al., 2018 Ahn et al., 2017 Bakas et al., 2018	HW4 due (2/20); HW5 out
8	Feb-28	Lecture: AI's Integration with Wearable Technology and Robotics in Healthcare Activities: Generative AI fun	Farhani et al., 2022 Halder and Kumar, 2023 Nahavandi et al., 2022	HW5 due (2/27)
9	Mar-6	Field Trip 2		
10	Mar-13	Spring Break, no class		

11	Mar-20	Case Study Analysis 1: Analyzing wearable technology healthcare applications and evaluating their risks and benefits	Sony mSafety for clinical trails Fitabase Stanford MyPHD	Field Trip 2 reflex due (3/19); HW6 out
12	Mar-27	Case Study Analysis 2: Robotics healthcare applications and safety considerations	InMotion Lokomat Kinova Hohl et al., 2022	HW6 due (3/26)
13	Apr-3	Case Study Analysis 3: How AI transforms wearable technology and robotics applications in healthcare	NIH Bridge2AI Consirtium	
14	Apr-10	Lecture: Responsible Innovation and Ethical Considerations Activities: Ethical Dilemmas Role-Playing	Segura et al., 2018 Lenca et al., 2017 Alami et al., 2020	
15	Apr-17	Lecture: Emerging Trends in Wearable Technology, Robotics, and AI Activities: Dry run for final presentations	Johnson et. al, 2024 Banerjee et al, 2020	Group Project Due (4/16)
16	Apr-24	Final group presentations and demonstrations		Presentation slides/video Due (4/23)

The course covers various aspects of wearable technology, robotics, and AI in the healthcare domain. The course includes a mix of lectures, hands-on activities, case studies, group discussions, field trips, and practical exercises to ensure a comprehensive learning experience for the students.

COURSE MATERIAL AND TECHNOLOGY

Course slides. Provided by the course instructor and posted online.

Textbook(s): None mandatory. Recommended (optional) textbooks/resources:

Tong, R. (Ed.). (2018). Wearable technology in medicine and health care. Academic Press.

Boubaker, O. (Ed.). (2023). Medical and Healthcare Robotics: New Paradigms and Recent Advances.

Van Wynsberghe, A. (2016). Healthcare robots: Ethics, design and implementation. Routledge.

Reading materials. Provided by the course instructor and posted online.

Hardware: Webcam and Microphone will be required for out-of-class activities. We may use laptop built-in webcams, and students will be required to move the camera during use. Additional technical requirements are outlined at <https://it.phphp.ufl.edu/phphp-computer-requirements/>

e-Learning in Canvas site: There will be an online site for this course in Canvas, the learning management system supported by the University. Log in at <https://lss.at.ufl.edu/> and go to course site for PHC3793: Fall 2022. The syllabus, out-of-class course content, assignments, and other course materials will be posted here. The course site will also allow for discussions/chats among the students and course

leaders. You will also turn in assignments through this site. It will be your responsibility to check the site on a routine basis to keep up with announcements, emails, and content modifications.

Software. Generative AI tools such as ChatGPT, Miro whiteboard, and Google Diagflow.

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://helpdesk.ufl.edu/>

Additional Academic Resources

[Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

[Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

[Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information.](#)

On-Line Students Complaints: [View the Distance Learning Student Complaint Process.](#)

ACADEMIC REQUIREMENTS AND GRADING

WEEKLY HOMEWORK (30 POINTS, 5 X 6 POINTS EACH, 30% OF TOTAL GRADE)

Each week (except for weeks 4-5, 9-10, 13-16), a case or problem set will be assigned (6 total assignments, at 5% each, equal to 30% of the total grade). Assignments will include but are not limited to multiple choice, matching, short answers, and interpreting results. Homework write-ups and related files will be turned in electronically via the Canvas e-learning system.

Field Trip 1 Reflection (15 points, 15% of Total Grade) – Due February 13

The first field trip will provide students with firsthand exposure to cutting-edge technologies, specifically robotics and AI, as applied in healthcare settings. The activities may include a guided facility tour, demonstrations of the robotic system, interactive workshops, and panel discussions with experts. Students will write a reflection paper based on the field trip experience describing the technology observed and experienced. The description should include the potential features of the technology and its range in terms of size, cost, etc. List user characteristics of individuals who would benefit from access to this technology. User characteristics can be defined as disability areas or areas of human function. Reflect on how the use of this technology potentially would impact a user within the home, school, and work and outside the community. Locate organizational, governmental, and civic funding sources appropriate for assisting in acquiring the technology. Sources should be listed to include name, contact information, and eligibility. Identify a single legislative mandate or governmental regulation that supports the use of the technology. Reasons why the law was selected and how the law provides support for access to and use of should be included. All work should be referenced where appropriate. The paper should be in 12-point font, single-spaced with one-inch margins. The total points for this assignment will be 15. A rubric that further describes the performance criteria for field trip reflection will be provided in Canvas.

Field Trip 2 Reflection (15 points, 15% of Total Grade) – Due March 19

The second field trip will provide students with firsthand exposure to wearable technology and AI applications in healthcare, understanding their role in patient care and health monitoring. The activities may include an Introduction to Wearable Technology and AI in Healthcare, demonstrations of wearable devices, AI analytics and data interpretation, a workshop on wearable design or AI programming, interaction with healthcare professionals, and field tests or simulations. Students will write a reflection paper based on the field trip experience describing the technology observed and experienced. The description should include the potential features of the technology and its range in terms of size, cost, etc. List user characteristics of individuals who would benefit from access to this technology. User characteristics can be defined as disability areas or areas of human function. Reflect on how the use of this technology potentially would impact a user within the home, school, and work and outside the community. Locate organizational, governmental, and civic funding sources appropriate for assisting in acquiring the technology. Sources should be listed to include name, contact information, and eligibility. Identify a single legislative mandate or governmental regulation that supports the use of the technology. Reasons why the law was selected and how the law provides support for access to and use of should be included. All work should be referenced where appropriate. The paper should be in 12-point font, single-spaced with one-inch margins. The total points for this assignment will be 15. A rubric that further describes the performance criteria for field trip reflection will be provided in Canvas.

Group Project Assignment (15 points, 15% percent of Total Grade) – Due April 16

Students will work in a group of 3~4 students on a technology topic with a common interest. Students will develop a research question and user case with support from the faculty, conduct the literature review on the selected technology, develop a conceptual mock-up prototype, and critically assess the proposed solutions. Generative AI tools and image/video creators will be taught and encouraged to use during the project. The students will report clearly how the AI tools are used and how their outputs are assessed and integrated. Students will try to answer these questions in the project report: what is known about the selected technology? What are the relationships between concepts, factors, and variables? What are the current theories? What are the inconsistencies and other shortcomings? What needs further testing because evidence is lacking, inconclusive, contradictory, or limited? What designs or methods are faulty? Why study this topic further? How will students' work contribute to current knowledge or literature? A rubric that further describes the performance criteria for the project report will be provided in Canvas.

Group Project Presentation (15 points, 15% of Total Grade)

Students will present their technology topics to the class and faculty members based on their group projects. Students will: 1) describe how the technology works with proper background information, how the strengths and weakness of the technology have been researched and studied with scientific evidence, and how the technology will benefit the intended user(s) with various abilities and needs; 2) describe the environments in which the student will use the technology and the barriers and facilitators related with the usage; 3) describe how the student (or others) will incorporate the technology into the student's clinical practice; and 4) describe how the student will measure the effectiveness of the AT. Student presentations should last no more than 20 minutes and will be followed by 10 minutes of questions from other students, faculties, and/or the course coordinator. Refer to the scoring rubric for oral presentation to prepare student presentation. The total points possible will be 15 for this assignment. A rubric that further describes the performance criteria for the final presentation will be provided in Canvas.

Participation (10 points, 10% of Total Grade)

In addition to live lectures, we will incorporate in-class active learning approaches, field trips, and hands-on sessions using interactive and discussion-based activities. Students are expected to be engaged during class and participate in all discussions/activities. Example activities will include cast study analysis, design thinking workshops, paper reading/synthesis, ethical dilemmas role-playing, and similar. A rubric that further describes the performance criteria for participation will be provided in Canvas.

GRADING

Requirement	Due date	Points or % of total grade (% must sum to 100%)
Weekly Homework	Tuesdays at 11:59 PM	30 Points (5 x 6-points each) 30% of Total Grade
Field Trip 1 Reflection	Feb 13, 11:59 PM	15 Points, 15% of Total Grade
Field Trip 2 Reflection	Mar 19, 11:59 PM	15 Points, 15% of Total Grade
Group Project	April 16, 11:59 PM	15 Points, 15% of Total Grade
Group Project Presentation and Demonstration	April 24	15 Points, 15% of Total Grade
Class Participation	In-class and field trips	10 Points, 10% of Total Grade

**All listed times are in EST*

Point system used (i.e., how do course points translate into letter grades).

Points earned	93.0-100	90.0-92.9	87.0-89.9	83.0-86.9	80.0-82.9	77.0-79.9	70.0-76.9	67.0-69.9	63.0-66.9	60.0-62.9	Below 60
Letter Grade	A	A-	B+	B	B-	C+	C	D+	D	D-	E

Letter Grade	A	A-	B+	B	B-	C+	C	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

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

COURSE POLICIES

Late Assignments

Each late assignment will receive a penalty of 25% deduction per day from the total correct score. In the event of excused absences that may interfere with your ability to perform an assignment or meet a deadline, contact the instructor as soon as possible. Such cases will be dealt with on an individual, case-by-case basis.

Absences should be discussed with the instructor in advance when possible. Late arrivals to class start-time and early departures before class ends are discouraged, as they have the potential to disrupt the class. However, extenuating circumstances occur and sometimes these things are necessary. If necessary, please make such instances as minimally disruptive as possible out of courtesy to the rest of the class.

Please note: Any requests for make-ups due to technical issues should be accompanied by the ticket number received from UF Computing Help Desk (helpdesk@ufl.edu) when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail the instructor, as applicable, within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Make up Work

Make-up work will be determined on a case-by-case basis. Please send an email to the instructor.

Please note: Any requests for make-ups due to technical issues should be accompanied by the UF Computing help desk (<http://helpdesk.ufl.edu/>) correspondence. You MUST e-mail the instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Attendance at all scheduled course activities is expected. Additionally, students will be responsible for additional out-of-class activities as part of a partially blended classroom environment (described above). Further, the assignments outlined will be completed outside of class. Students will be required to meet with their term project groups outside of class and may find it beneficial to attend other events or have additional scheduled meetings, depending on the topic selected by their working group outside of the in-person course meetings.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/>

Policy Related to Guests Attending Class

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Please consult UF guideline: <https://catalog.ufl.edu/UGRD/academic-regulations/>

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Please refer to the expectations for the course below. These behavior expectations are guidelines to foster a positive and conducive learning environment. Students are expected to adhere to these standards throughout the course to create an environment conducive to learning and collaboration.

Expectations	Description
Attendance and Punctuality	<ul style="list-style-type: none"> - Regular attendance and punctuality are expected. - Attendance records will be maintained. - Notify the instructor in advance of any planned absence or lateness.
Active Participation	<ul style="list-style-type: none"> - Actively engage in discussions, activities, and group exercises during class sessions. - Contribute thoughtfully, respect diverse viewpoints, and encourage collaborative learning.
Preparation and Readiness	<ul style="list-style-type: none"> - Come to class prepared, having reviewed assigned readings, materials, or tasks beforehand. - Be ready to participate, ask questions, and contribute to class discussions based on the prepared content.
Respect and Professionalism	<ul style="list-style-type: none"> - Show respect towards the instructor, fellow students, and guest speakers. - Maintain professional behavior in all interactions, both in-person and during the field trips.

Expectations	Description
	- Be open to diverse perspectives and always demonstrate respectful communication.
Engagement with Course Material	- Engage critically with course content, assignments, and assessments. - Show an understanding of key concepts and apply them in discussions and practical exercises. - Seek clarification on unclear concepts and actively seek to deepen understanding.
Adherence to Academic Integrity Policies	- Uphold academic integrity by avoiding plagiarism, cheating, or any form of academic dishonesty. - Properly cite sources, give credit where due, and adhere to ethical standards in research, assignments, and all academic work.
Timely Submission of Assignments	- Submit assignments, projects, and assessments by the specified deadlines. - Late submissions may be subject to grade penalties unless prior arrangements have been made with the instructor due to extenuating circumstances.
Technology Use in Class	- Use technology devices responsibly for class-related activities, discussions, and research purposes only. - Avoid distractions caused by personal devices during lectures or group activities. - Follow guidelines set by the instructor for technology use.
Collaboration and Teamwork	- Engage positively in group work, demonstrating effective teamwork and collaboration skills. - Contribute actively to team projects, respecting diverse opinions and responsibilities. - Communicate and resolve conflicts within the team respectfully.
Feedback and Communication	- Provide constructive feedback to peers and the instructor in a respectful manner. - Seek clarification or guidance from the instructor whenever needed. - Use official communication channels for course-related queries or concerns.
Flexibility and Adaptability	- Show flexibility in adapting to changes in the course schedule or instructional format. - Be open to learning new methodologies, tools, or technologies introduced during the course. - Demonstrate adaptability in various learning environments.

Communication Guidelines

The communication guidelines are a collaborative agreement between the all of the students and the instructor (and TA, as applicable). Email messages are expected to be sent through UF email or the Canvas system. Students should expect a response within 2 business day (48 hours).

Announcements: Class announcements will be sent via the announcements tool in eLearning. Depending on your CANVAS notification settings, you may or may not be notified via email; you are responsible for all information in these announcements whether or not you see them in your email.

Further, please see the university's Netiquette Guidelines:

<https://biostat.ufl.edu/current-students/e-learning-resources/e-learning-basics/etiquette-online/>

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

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

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

If 80% of students submit the online faculty evaluation, 1 additional point will be applied to the final grade of all students. If 100% of students submit the online faculty evaluation, 2 additional points will be applied to all student's final grade.

Recording Within the Course

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a

recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

SUPPORT SERVICES

Accommodations for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. Online and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:
Alachua County Crisis Center:
(352) 264-6789
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious, and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender

identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu

FULL CITATIONS FOR READINGS:

1. Izmailova ES, Wagner JA, Perakslis ED. Wearable devices in clinical trials: hype and hypothesis. *Clinical Pharmacology & Therapeutics*. 2018 Jul;104(1):42-52.
2. Garcia-Gonzalez A, Fuentes-Aguilar RQ, Salgado I, Chairez I. A review on the application of autonomous and intelligent robotic devices in medical rehabilitation. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*. 2022 Sep;44(9):393.
3. Maddox TM, Rumsfeld JS, Payne PR. Questions for artificial intelligence in health care. *Jama*. 2019 Jan 1;321(1):31-2.
4. Varghese RJ, Freer D, Deligianni F, Liu J, Yang GZ, Tong R. Wearable robotics for upper-limb rehabilitation and assistance: A review of the state-of-the-art challenges and future research. *Wearable technology in medicine and health care*. 2018 Jan:23-69.
5. Farhani G, Zhou Y, Jenkins ME, Naish MD, Trejos AL. Using Deep Learning for Task and Tremor Type Classification in People with Parkinson's Disease. *Sensors*. 2022 Sep 27;22(19):7322.
6. Halder S, Kumar DA. An Overview of Artificial Intelligence-based Soft Upper Limb Exoskeleton for Rehabilitation: A Descriptive Review. *arXiv preprint arXiv:2301.04336*. 2023 Jan 11.
7. Kyrarini M, Lygerakis F, Rajavenkatanarayanan A, Sevastopoulos C, Nambiappan HR, Chaitanya KK, Babu AR, Mathew J, Makedon F. A survey of robots in healthcare. *Technologies*. 2021 Jan 18;9(1):8.
8. Phillips SM, Cadmus-Bertram L, Rosenberg D, Buman MP, Lynch BM. Wearable technology and physical activity in chronic disease: opportunities and challenges. *American journal of preventive medicine*. 2018 Jan 1;54(1):144-50.
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