GERO-520: INTRODUCTION TO GERONTECHNOLOGY

Effective Term
Spring 2025

BOT Approval Date
04/11/2024

Discipline
GERO - Gerontology-Aging Studies

Course Number
520

Course Title
Introduction to Gerontechnology

Short Title
Intro to Gerontechnology

Credit Status (CB 04)
D - Credit - Degree applicable

Units

Lecture Units
3.00

Total Units
3

Hours

Lecture Contact Hours
48-54

Out of Class Hours Lecture
96-108

Total Contact Hours
48 - 54

Total Out of Class Hours
96 - 108

Total Student Learning Hours
144 - 162

Distance Education
Yes

Distance Education

Distance Education Type
Both Fully Online and Hybrid Online

Fully Online Delivery Requirements:
a. Students must be notified via the college schedule of classes and the syllabus for the class if proctored tests are required for this course
b. Any planned face-to-face meetings, such as an orientation or study session, must be optional

c. The MSJC curriculum committee requires the use of accessible, asynchronous discussion as a component of every fully online course

Are you using publisher content?

No

Regular Substantive Interaction

Instructor-to-student, student-to-student, and student-to-content contact shall be distributed in a manner that will ensure regular substantive interaction (RSI) is maintained not only weekly but also for the duration of the course. Instructor interactions should be equivalent in time, quality and consistency to the engagement students would receive in a face-to-face course—for example, through announcements, discussion participation, personalized feedback, video messages, or other instructional communications. Instructors are expected to be responsive to student inquiries within a 24-72 hour time frame excluding holidays. RSI will be maintained through a variety of methods: • Orientation - Students must be oriented to the online and face-to-face portions at the start of the course. • Announcements - Announcements using the course management system must be posted at least weekly to keep students current on course events, due dates, materials, etc. • Discussion Forums - Content-related discussion forums within the designated CMS will include appropriate instructor participation and will be initiated and maintained, with timely feedback provided. Instructors are required to monitor the discussions and related activities to provide guidance and direction. Open-ended discussion boards may be used to further learning and interaction. • MSJC Communication – Instructor will use MSJC-administered communication tools (such as email or the designated CMS communication tools) to regularly communicate with and provide ease of access to students. • Timely Feedback - Timely feedback on student work will be provided by the instructor, which may include comments and/or rubrics, within the Grades area of the designated CMS. • Scheduled Meetings – Hybrid and synchronous courses will meet at regularly scheduled times. ADA Compliance - All course interactions and content must be designed with accessibility in mind and meet ADA requirements.

Additional Regular Substantive Interaction

Discussion boards- Course and technical issues are addressed in a separate discussion board. It is recommended that faculty will respond within 48 hours, except for holidays and weekends.
E-mail Communication - E-mail may reinforce announcements and discussion board communication. It is recommended that the faculty will respond within 48 hours, except for holidays and weekends.

Catalog Description

This course will introduce the principles of Gerontechnology, an interdisciplinary field that combines gerontology and technology. Gerontechnology is defined as a subfield of gerontology linking existing and developing technologies to the aspirations and needs of aging and aged adults. Gerontechnology supports optimal aging and is a response to the combination of the aging of society and rapidly emerging new technologies. Students will have the chance to both learn about the theories and principles of aging and assistive technology and apply design-thinking to aging-related contexts and scenarios addressed. Students and professionals are equipped with information to provide quality care for older adults while taking care of their own needs for respite and support.

Attach Supporting Documents

Occupational Outlook_Medical and Health Services Managers.pdf
Riverside County Office on Aging Report.pdf
Calfornia Master Plan for Aging.pdf
AGHE Competencies.pdf
Centers for Excellence LMI_Gerontology.pdf
Occupational Outlook_ Social and Community Service Managers _ US Bureau of Labor Statistics.pdf
Deans Meeting_Gerontology-Aging Studies.pdf
Centers for Excellents LMI_Human Services.pdf

Codes

TOP Code (CB 03)

1309.00* - *Gerontology

CIP Code

30.1101 - Gerontology.

Repeatability Code

No

Grading Option

Letter grade OR P/NP

Learning Objectives

Learning Objectives

Learning Objective
1. Describe the fundamentals and latest developments in gerotechnology.
2. Explain practical issues faced by the senior population, including issues of diversity, equity and access.
3. Discuss the current status of the cutting-edge assistive technology, especially developments in the realms of smart homes and universal design.
4. Describe the aging process and research methodology in aging, which provide the foundations for the development of assistive technologies.
5. Differentiate basic technologies that are used to monitor, assess, and assist the health of older adults.
6. Illustrate user needs through experiences working with older adults
7. Demonstrate skills in gerontological thinking to define and resolve real-world problems, in particular those related to ethical utilization of technology to aid older adults.
8. Conceptualize and design practical smart home services for older adults.
9. Investigate needs for diverse older population to utilize and access technology
10. Analyze evidence of the need for gerontechnology.
11. Identify potential barriers to utilizing gerontechnology, including digital literacy, culture, language and available economic resources.

Learning Outcome Information

Course Learning Outcomes

Learning Outcome
1. Students will acquire knowledge of current trends in technology that improve quality of life, and care delivery for, older adults.
2. Students will gain insight into aging, the challenges of old age, and how technological applications can improve housing, health, mobility, communication, leisure and work needs of older adults.
3. Students will analyze and discuss the ethical issues related to gerotechnology including how diversity and culture influence views on both aging and technology.
4. Students will engage in multiple and simultaneous outcomes and activities related to gerotechnology.

Program Learning Outcomes

Learning Outcome
Student will demonstrate knowledge of relationships among older adults, their families, and society.
Student will apply current theory and research in the interdisciplinary field of gerontology and its role in society to assess biological, social, and psychological issues that impact older adults and those who work with and care for them.
Student will integrate information and perspectives from various disciplines to understand the biological, social, and psychological aspects of aging related to diversity and equity shape the experience of aging.
Student will demonstrate the ability to conduct and evaluate gerontological information and research using a variety of methods.
Student will understand and evaluate social policy and its impact on programs and services for older adults and examine how issues.
Student will express ideas effectively in oral and written formats.
Student will analyze critical issues, aspects of ageism in American society and socially conscious behavior regarding the older population and apply knowledge to the field of aging.
Student will apply acquired interdisciplinary knowledge of older adults in varied career applications, such as the design of services for older adults, patient care, and engineering and technology for independent living.

Institutional Learning Outcomes

Communication: The student will effectively express and exchange ideas through listening, speaking, reading, writing, visual works, and other modes of interpersonal expression.

Social Awareness: The student will recognize and analyze the interconnectedness of global, national, and local concerns, analyzing cultural, political, social, and environmental issues from multiple perspectives and appreciate similarities and differences among cultures.
Civic
Personal
and Professional Responsibility

Content

Course Lecture Content

1. Introduction to Gerontechnology
2. AgeTech
   a. Increased levels of independence and aging in place.
   b. Utilization of low-cost technology to support older adults in diverse communities, different socioeconomic situations, and
   c. Introduction to Smart Home Technology
3. Introduction to Assistive Technology
   a. Successful Aging and Accommodation
4. Optimal, Usual, and Pathological Aging
   a. Differences in how older adults experience aging in terms of diversity.
   b. Activities of Daily Living and Assistive Technology
   c. Mobility and Transportation
5. Communication, Information Processing, and Cognitive Performance
   a. Technological literacy
   b. Language barriers
   c. Cognitive or physical disability
6. Social Interaction
   a. Intergroup
      i. Aging and diversity in a cultural and family context
         1. Integration into intergenerational caregiving planning and goals for aging in place vs. institutional care
         2. Resistance of some cultures to access or utilize technology as part of the caregiving strategy
         3. Fears around use of technology in terms of intrusion and privacy
   b. Intra group
      i. Aging and diversity as an individual within a broader social context.
7. Principles of Universal Design
8. Address issues of diversity, equity and inclusion from an aging perspective relative to design and access in public and private spaces.
9. Technology use and acceptance
   a. Smart environments
   b. Ambient sensors and sensor networks
   c. Machine learning
10. Technological Capabilities to Assist Successful Aging and Independent Living
    a. Monitoring
    b. Assessment
    c. Compensation
    d. Prevention
    e. Intervention
    f. Rehabilitation
    g. Enhancement
11. Evaluation of Assistive Technology
    a. What works and what does not
    b. Human-centric design/human factors
    c. Technology Applied to Aging
12. Aging, senses, and healthcare
    a. Designing for older adults
    b. Aging, mobility, and falls
    c. Aging, cognition, and everyday function
    d. Monitoring and rehabilitation

13. Barriers to Use Limited
    a. Limited technological literacy
    b. Digital gender divide
    c. Cultural and linguistic diversity
    d. social stigma and cultural beliefs
    e. access to technology in low income communities
    f. Privacy concerns in diverse communities

Methods of Instruction

Method

Lecture

Integration

This course explores the emerging potential of gerontechnology, with a specific focus on healthcare management, communication enhancement, support for instrumental activities of daily living, and mobility-related solutions. In these lectures, we employ a variety of presentation tools to ensure an interactive and engaging learning experience for students. Through lively discussions within lectures, knowledge assessments embedded within closed caption videos (utilizing video quizzing tools), and practical demonstrations of technology's application in the classroom, we aim to exemplify how technology can effectively underpin independent living, bolster healthcare provision, and offer opportunities for lifelong engagement across the entire lifespan.
Our exploration acknowledges the significance of cultural differences in attitudes toward technology, the affordability of technological solutions, an older adult's willingness to engage with technology, and the intergenerational utilization of gerontechnology to allow older adults to age in place.
Lectures are supplemented with accessible/closed caption videos, and external resource links. This multimedia approach not only facilitates a deeper understanding of gerontechnology but also showcases the latest research developments in this evolving field. Throughout the course, students will critically examine the cultural nuances that shape attitudes towards technology, considering the affordability of technological solutions and the willingness of older adults to adopt and utilize these innovations. Additionally, the intergenerational dimension will be explored, focusing on how gerontechnology can be leveraged to support aging in place, creating a holistic understanding of the complexities and opportunities that exist in the field.

DE Adaptations for MOI

Lectures can be communicated through the CMS in a variety of formats, including accessible Powerpoint presentations and lecture videos. Websites and online videos can be incorporated as part of these lectures. Lectures can be delivered through video conferencing platforms to ensure that accessibility needs are met.

Method

Discussion

Integration

The course's discussion forums serve as a structured and secure environment for students to explore and address key aspects of gerontechnology. These forums provide a platform to discuss cultural differences in the utilization of technology, cohort disparities in digital literacy, the availability of infrastructure supporting technology in both home and institutional settings, and the ethical considerations associated with incorporating technology into caregiving.
Engaging in discussions about the scope of gerontechnology, best practices, and future opportunities, students will have the opportunity to showcase their understanding of the course content. This includes recognizing how digital competency influences life satisfaction, understanding how gerontechnology can enhance the quality of life for some individuals, and identifying barriers within the diverse older adult population.
Through these discussions, students will actively identify challenges and collaboratively problem-solve potential solutions. The forums are designed to encourage the exchange of ideas, findings, and comprehension of course objectives in an environment that fosters a sense of safety and respect for differing views. To ensure inclusivity, discussion board instructions will adhere to accessibility requirements, and all communication will take place through a course management system (CMS). This approach provides a cohesive and accessible platform for students to engage meaningfully with the course material and with each other.

DE Adaptations for MOI

Student discussion will be achieved using asynchronous threaded discussions with other students and the instructor within the CMS, or by participating in synchronous discussions using accessible video conferencing platforms. Students can also be divided into breakout groups during synchronous group meetings to compare their ideas before being brought back to the main session to compare their ideas as a class. Using the CMS for all discussions will ensure accessibility requirements are met.

Method

Visiting Lecturers

Integration

Guest speakers from a wide range of industries in gerontechnology may be invited to offer lectures on specialized areas or topics related to the future and potential gerontechnology. This is especially important because of the rapidly changing digital world and emerging technologies. These guest speakers enhance student learning and offer them exposure to various perspectives within the field.

DE Adaptations for MOI

Guest Speakers can join online classes via CMS videoconferencing. It can be synchronous or asynchronous. Instructors may also post videos/media interviews of guest speakers with closed captioning to meet accessibility requirements.

Method

Reading

Integration

It's important to note that while textbook literature provides valuable theoretical perspectives, the dynamic landscape of gerontechnology demands access to the most up-to-date information. Therefore, the most reliable sources for information are professional journals, white papers, and other contemporary publications.

In tIn this course, students will delve into the dynamic interplay between culture and technology utilization, recognizing how cultural influences shape attitudes towards gerontechnology. Moreover, the exploration will encompass an understanding of economic barriers that may complicate access to technology, acknowledging that financial constraints can impact an individual's ability to adopt technological solutions. Additionally, cohort differences in digital literacy will be explored, recognizing how varying levels of technological familiarity within different age groups can influence the willingness to integrate technology into daily routines.
It is crucial to note that, while textbook literature provides valuable theoretical perspectives, the ever-changing landscape of gerontechnology necessitates access to the most up-to-date information. Therefore, students will engage with a diverse array of materials, including textbook chapters, articles, case studies, and current literature on gerontechnology sourced from both industry and academic journals. These resources are readily accessible through the MSJC library.
Given the dynamic nature of this field, both students and instructors must remain vigilant in identifying and sharing current publications to stay at the forefront of the latest advancements and insights in gerontechnology. This collaborative effort ensures that our knowledge remains relevant and aligned with the rapid pace of change in the field.

DE Adaptations for MOI

Relevant readings can be delivered through materials provided in the CMS or the assigned texts, or students can access current research through MSJC's online library collections. Some papers and projects related to class readings may also use asynchronous threaded discussions in Discussion Boards, where students can compare their ideas from a reading and also compare research projects or share resources or websites related to reading content. Students can also use discussion boards to share common issues related to the project, such as Q & A forums where students can ask questions about the reading or project, and the instructor or other student can answer via the CMS to meet accessibility requirements.

Methods of Evaluation

Method

Class Participation

Integration

In this course, students will enjoy regular and substantive opportunities to exchange ideas, share findings, and contextualize course content, demonstrating their understanding that factors such as culture, language, economics, digital literacy, and physical or cognitive disability can significantly impact the ability to utilize and access gerontechnology. Given the dynamic landscape of gerontechnology, continuous student engagement is essential to ensure they remain updated with the latest information.
Class participation will be assessed through various means, including active involvement in discussion boards, collaborative group projects, and the consistent submission of journals. These activities are specifically designed to encourage students to integrate fresh concepts into their comprehension of how technology can enhance the quality of life throughout the entire lifespan.
Discussions within the course encompass a broad range of topics, ranging from the assessment of needs in the realm of gerontechnology to the ethical considerations associated with the use of technology in home settings. By actively participating in

these discussions and assignments, students will not only stay abreast of current trends but also play an active role in contributing to the collective exploration of this rapidly evolving field. Regular interaction with classmates is equally essential for the exchange of ideas and insights, fostering a vibrant learning environment that enhances the overall educational experience.

DE Adaptations for MOE

Discussion forums and blogs within the CMS can be utilized to assess class participation in asynchronous courses and video conferencing tools can be utilized for synchronous online course meetings through CMS videoconferencing. The instructor will employ available accessibility features within the CMS to ensure equitable access for all students during the evaluation process.

Method

Exams/Tests

Integration

Periodic short objective tests of course-related learning objectives will be administered and graded for accuracy. Quizzes may take the form of objective (multiple choice/true false/short answer) or longer essay response. Quizzes/exams may be graded manually or via auto-grading process (w/in CMS or via scantron). The instructor will provide correct responses, comments, and grades within two weeks of the due date of these quizzes within the gradebook using the CMS.

DE Adaptations for MOE

Unit quizzes offered through CMS will assess course learning objectives. Using accessible tools, including objective tests, closed-caption video responses, or other accessible technology, students will demonstrate understanding of core course competencies. Quizzes should be timed, open book/note, focusing on course learning objectives. Quizzes may be graded manually by the instructor or through the CMS auto-grading system. The instructor will provide correct responses, comments, and grades within two weeks of the due date of these quizzes within the gradebook using the CMS.

Method

Papers

Integration

Students will undertake research on current integrations of gerontechnology, exploring how different groups of the population utilize technology. They will recognize that digital competencies across cohorts widely vary, influencing the willingness of individuals to integrate gerontechnology into their daily routines. Additionally, students will understand that language and economics can impact both access to and utilization of technology, necessitating caregivers and advocates to provide support and resources.
The course will place significant emphasis on emerging technologies in the field of gerontechnology. To showcase their comprehension of the opportunities and challenges within this domain, students will actively engage in producing long-form papers, research analyses, and personal reflection papers.
These written assignments will serve as a platform for students to explore how gerontechnology can enrich the aging experience, while also delving into the complexities of the digital divide and its impact on equity within the older population.
To ensure clarity and transparency, rubrics and clear instructions for each assignment will be provided. Evaluation criteria will focus on correctness, clarity, completeness, and precision. Following the submission of their work, students can expect timely feedback and grades from the instructor. This feedback will be provided within two weeks of the assignment's due date and will be accessible through the course management system (CMS) gradebook.

DE Adaptations for MOE

Evaluation of student application of communication skills will be submitted via CMS. Rubrics/clear instructions will be provided. The instructor will employ available accessibility features within the CMS to ensure equitable access for all students during the evaluation process. Papers will be evaluated through correctness, clarity, completeness, and precision. The student will receive a grade and feedback from the instructor within two weeks of the assignment's due date within the gradebook using the CMS.

Assignments

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Formative

Assignment

Assignment
Assignment Description: How Do Older Adults Use Technology (Interview)
Although older adults report a willingness to adopt technology, usage data suggest that older adults are part of the "digital divide," a distinction made between those who do and those who do not adopt the technology. Where some cultures embrace technology, others may see it as invasive. Those with more economic resources may be in a better position to utilize technology in their homes compared to those with little economic support. Most literature on older adults' technology use stems from large-scale surveys. The purpose of this assignment is for you to gather thoughts and perspectives from older adults about their technology use. Interview three people over the age of 70. Explore their attitudes about technology broadly. You will write up your findings in a 2-page reflection format.
Explore:
What technologies do you use at home, work, or for your health?
What do you like and dislike about using this technology in these areas of your life?
How might you, or your caregivers, utilize gerontechnology to allow you to age in place?
Would you feel comfortable utilizing motion sensor alarms to report a fall, or using video chatting for doctors appointment?
In your use of technology have you experienced challenges with access or utilization?

Develop a 1-2 page summary of your findings, including any graphics or other visual aids, and submit your work to the discussion board. Once you have posted your initial work, please come back to the discussion board and view responses from other students. Offer a 1-2 paragraph feedback response to at least TWO of your classmates' postings to receive full credit.

Evaluation:
Evaluation criteria will center on correctness, clarity, completeness, and precision, ensuring that students effectively convey their grasp of the subject matter. Moreover, these assignments will also serve as an opportunity for students to explore and showcase their comprehension of the ways in which older adults incorporate technology into their lives.

Students can anticipate timely feedback. Within two weeks of the assignment's due date, they will receive both grades and feedback through the gradebook accessible within the course management system (CMS). This feedback mechanism promotes ongoing improvement and engagement with the course material.

How assignment will be adapted in online format

The assignment will be assigned, submitted, and graded through the course management system (CMS). Online courses should make course material, including assignment instructions, supplemental resources, website links, etc., available to students through the CMS. Students will submit the assignment through the CMS and will be provided with instructor feedback through the grade book function, messaging, or other forms of confidential communication within 2 weeks of submission. Any material for students and communications must meet accessibility guidelines

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Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Formative

Assignment

Assignment Description: Age-Related Technologies (A Survey)
Identify 2 different technology solutions or products for older adults in each of the following domains:
Home/aging in place
Falls
Cognition
Mobility
Transportation
Social engagement

Compare and contrast these products across the following design features:
Equity and inclusivity
Accessibility
Cost
Older adult-informed design
Effectiveness
Monitoring

Write a 3-page reflection on your solutions and findings. Identify gaps in the availability of products for older adults. What else is needed.

Submissions via CMS ensure accessibility and clarity. Rubrics and instructions will be provided for each assignment, evaluated for correctness, clarity, completeness, and precision. Students will receive grades and feedback from the instructor within two weeks via the CMS grade book.

How assignment will be adapted in online format

The assignment will be assigned, submitted, and graded through the course management system (CMS). Online courses should make course material, including assignment instructions, supplemental resources, website links, etc., available to students through the CMS. Students will submit the assignment through the CMS and will be provided with instructor feedback through the grade book function, messaging, or other forms of confidential communication within 2 weeks of submission. Any material for students and communications must meet accessibility guidelines

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Assignment Type

Reading

In-class and/or outside of class

In-class
Outside of class

Formative or Summative

Summative

Assignment

Assignment
Assignment Description: Capstone - Available Technologies and Access

Technology is transforming the possibilities for aging in place. As technology becomes increasingly important in daily routines and occupations, opportunities exist to develop short and long term strategies for using technology to enable independent living for older adults. By acquiring knowledge of current technology applications, students can analyze the needs of an older adult, and develop best-fit, culturally competent solutions for homes and care centers. In order to develop a broad knowledge base of available technologies, students must review a wide range of literature and research, and using their understanding of age-related issues, develop contextual solutions.

Step 1: Collaborative Research
1) Students will individually conduct an extensive literature review of no less than five different types of gerontechnology. Reading academic and industry publications, students will learn to identify and describe the technology, its efficacy and application. With special attention to cultural competency, explore how gerontechnology is currently being used; what barriers to utilization exist from the perspective of diversity, equity and access; what solutions are being proposed to meet the needs of a widely diverse potential user base?
2) Students will develop an annotated bibliography. Each citation must include original source (including any URLs) and publication information, a one-paragraph summary of the use and application of the technology, and one paragraph of suggested direct application in a home or care facility including how the technology will address specific needs of diverse older adults.
3) Students will share this information through a discussion board or wiki page
4) Students will then work in small groups to create a care plan for a case study provided by the instructor. These case studies will offer students an opportunity to develop a gerontechnology strategy that best meets the needs of an older adult. Scenarios should include a range of conditions that include mobility, sensory impairment, cognitive impairment or the special needs of hospice patients, as well as individual factors of socioeconomic, diversity and equity faced by older adults.
5) Small groups will present their gerontechnology proposal in the form of either a written report or a video presentation.

Use the following suggested readings as a starting point for your own research:

Halicka, K., & Surel, D. (2021). Gerontechnology—new opportunities in the service of older adults. Engineering Management in Production and Services, 13(3), 114-126.

Bergschöld, J. M., Neven, L., & Peine, A. (2020). DIY gerontechnology: circumventing mismatched technologies and bureaucratic procedure by creating care technologies of one's own. Sociology of Health & Illness, 42(2), 232-246.

Murciano-Hueso, A., Martín-Lucas, J., Serrate-González, S., Torrijos-Fincias, P., & Gutiérrez-Pérez, B. M. (2022, October). Daily Life of Elderly: An Approach to the Use of Gerontechnology. In International conference on technological ecosystems for enhancing multiculturality (pp. 509-515). Singapore: Springer Nature Singapore.

CMS submissions guarantee accessibility compliance. Expect provided rubrics and instructions. Assessments cover correctness, clarity, completeness, and precision. Students receive grades and feedback within two weeks through the CMS grade book.

How assignment will be adapted in online format

The assignment will be assigned, submitted, and graded through the course management system (CMS). Online courses should make course material, including assignment instructions, supplemental resources, website links, etc., available to students through the CMS. Students will submit the assignment through the CMS and will be provided with instructor feedback through the grade book function, messaging, or other forms of confidential communication within 2 weeks of submission. Any material for students and communications must meet accessibility guidelines

Course Materials

Textbooks

Required:
Pilotto & Maetzler, (2023) Gerontechnology. A Clinical Perspective, Springer Publishing
and/or
Peine, A., Marshall, B., Martin, W., & Neven, L. (2021). Socio-gerontechnology. Routledge. (Most recent edition)
and/or
Etkin, K. (2021). The AgeTech Revolution. New Degree Press.

Etkin, K. (2021). The AgeTech Revolution. New Degree Press.

Class Size Information

Class Size

40

Class Size Category

A - Lecture/discussion 40

Diversity and Inclusion

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

In this course, students will explore the widely diverse aspects of gerontechnology integration, considering how different cultures utilize technology. Students will recognize that digital competencies across cohorts vary significantly, influencing the willingness of individuals to incorporate gerontechnology into their daily routines. Additionally, an understanding will be developed that language and economics can impact both access to and utilization of technology, requiring caregivers and advocates to provide support and resources.
The course will place significant emphasis on emerging technologies in the field of gerontechnology. To showcase their comprehension of the opportunities and challenges within this domain, students will actively engage in producing long-form papers, research analyses, and personal reflection papers.
These written assignments will serve as a platform for students to explore how gerontechnology can enrich the aging experience, considering the widely diverse factors such as culture, digital competency, economic resources, disability, and public infrastructure. The complexities of the digital divide and its impact on equity within the older population will be a central focus.

To ensure clarity and transparency, rubrics and clear instructions for each assignment will be provided. Evaluation criteria will concentrate on correctness, clarity, completeness, and precision. Following the submission of their work, students can expect timely feedback and grades from the instructor, accessible within two weeks of the assignment's due date through the course management system (CMS) gradebook.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

The discussions about technology in this course necessitate active engagement from students, urging them to be open to a wide range of paradigms and communicate in a manner that acknowledges the unique experiences of a diverse student body. This inclusivity extends not only to factors of diversity but also to varying levels of underlying knowledge about technology. Creating a collegial atmosphere is crucial due to the broad scope of content and the diverse ways technology is utilized based on personal experience, economic factors, educational background, and willingness to embrace technology.
Students are provided with equal opportunities to access all learning resources through CMS, coupled with individual support from the instructor via CMS videoconferencing software. Accessible/closed captioned videos and diverse media formats are employed to ensure success in the area of Diversity, Equity, and Inclusion (DEI). Instruction is delivered through recorded/captioned video and printed lectures.
Discussion boards offer dual formats – student-to-student and student-to-instructor – fostering asynchronous discussions in print or video format using accessible CMS video conferencing software. PowerPoint or accessible/closed captioned video presentations are uploaded onto Canvas for student use. Exams and tests, administered fully online, may encompass multiple choice, short answer essays, or other formats aligned with learning objectives. These assessments adhere to accessibility guidelines and are evaluated through CMS, emphasizing the demonstration of identification and/or understanding of major topics in the course content.
Instructor feedback is provided within two weeks through CMS. The textbooks and supplementary materials are intentionally designed to address a segment of the population often marginalized, introducing students to a life course perspective on the aging process. Engaging interactions between instructor-to-student and student-to-student encourage students to contemplate age-related attitudes in society, broadening their understanding of their futures.

Interactions

Explain how the course will incorporate student-to-student interaction.

The course places a strong emphasis on discussion as a means to foster an understanding of technology and its applications, while also identifying potential barriers that older adults may face in accessing such technology, including cultural attitudes about technology, digital competency between cohorts, language, economic and infrastructure.

To facilitate this, we promote student-to-student interaction, utilizing group discussions as a key method of evaluation. Given the rapid evolution of technology, these discussions serve as dynamic platforms for promptly addressing new technology developments, policies, funding sources, and innovations. They provide an avenue for students to share their interpretations of course content, ask questions, and exchange the most recent information they've gathered.

Group activities play a pivotal role in deepening comprehension of various topics and encourage collaborative efforts, while ensuring that student voices remain central. For instance, students might explore technological advancements in their own geographic regions or investigate access points and challenges in integrating technology into home environments. A variety of collaborative activities, including breakout rooms, small group discussions, and online forum posts, will offer students frequent opportunities for engaging in peer-to-peer discussions, cultivating a sense of community within the classroom.

Furthermore, students may work collaboratively in small groups, either online or in-class, to create presentations on theoretical perspectives or new innovations. These collaborative endeavors will take place through the course's CMS discussion forums, video-conferencing breakout rooms, and in-class sessions, enabling students to collectively explore critical approaches and apply concepts. These formative activities are integral to building understanding, fluency, and fostering a strong sense of community within the course.

Explain how the course will incorporate instructor-to-student interaction.

The instructor plays a vital role in this course by providing foundational understanding of gerontechnology, and the sociocultural implications of using technology as a tool in successful aging and caregiving. The instructors primary role is to guide students to discover state-of-the-art innovations, and offering a framework for integrating them into the course.

The instructor's responsibilities encompass introducing course materials, elucidating concepts, and illustrating the relationships between these concepts. They also demonstrate problem-solving techniques, offering students a strong basis for grasping the subject matter. Additionally, instructors evaluate assignments based on provided rubrics and deliver timely feedback on all assessments. This includes moderating discussions on contentious topics, guiding these conversations, and offering valuable insights.

Moreover, instructors model critical thinking processes, emphasize the importance of understanding intersectionality, and encourage students to consider sociohistorical and sociopolitical factors in their analyses and applications. This approach helps students bridge course content with real-world observations, enabling them to comprehend their learning journey.

Instructors are equipped to offer feedback through various channels, such as video conferencing software, CMS grading tools, or individual meetings with students. This multi-faceted approach to teaching ensures that students receive the guidance, support, and feedback they need to excel in the course while making meaningful connections between the material and their real-world experiences.

Explain how the course will incorporate student-to-content interaction.

Given the rapidly evolving landscape of gerontechnology, it is imperative that students in this field become adept at sharing information, resources, and ideas. This course serves as a platform for students to develop a professional and collaborative approach to sharing knowledge.

Students are encouraged to interact with course content and supplemental materials to bolster their engagement with course topics. Through the course's CMS discussion forums, video-conferencing breakout rooms, and in-class sessions, the instructor actively participates in class discussions, prompting students to apply critical legal decisions and elucidate their outcomes.

The course employs diverse methods of instruction to promote student-to-content interactions. Students encounter the material through lectures, individual and group activities, visual and virtual demonstrations, as well as experiments. This diversity allows students ample opportunities to engage with the content, whether it's a textual reading or a visual simulation. For instance, students may be tasked with selecting and discussing challenges related to accessing or providing quality care for older adults.

The instructor plays a pivotal role in providing, demonstrating, and modeling examples of how students can interact with course content. This approach nurtures critical thinking, reflective skills, and the ability to identify sociological concepts in their daily lives, thereby enhancing their understanding and application of course material.

Explain how the course will incorporate student-to-self interaction (metacognitive).

While technology has been enthusiastically embraced by society, older adults have often been marginalized in the rush for innovation. Now, the time has come for students to reflect on their own lives and consider how they can contribute to creating safer environments, more efficient services, and enhanced care for older adults, both in their present communities and for their own future aging.

This course stimulates critical thinking by prompting students to contemplate the relevance of the material to their own lives, communities, and families. For instance, students are encouraged to ponder how gerontechnology can enhance the well-being of older adults in their communities or households. They should also consider the challenges that older adults may face when it comes to accessing or utilizing gerontechnology in their daily lives.

Through readings, lectures, hands-on activities, and discussions, students are inspired to explore how various services and resources for older adults can directly impact their own life satisfaction as they navigate the aging process. This approach not only broadens their understanding of gerontechnology but also empowers them to make a positive difference in their own lives and those of the elderly population.

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