HLTH 171: ARTIFICIAL INTELLIGENCE IN HEALTHCARE

In Workflow

1. HHS College Committee Chair (andrea.becker@csus.edu)
2. HHS Dean (sac19804@csus.edu)
3. Academic Services (catalog@csus.edu)
4. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
5. Dean of Undergraduate (gardner@csus.edu)
6. Dean of Graduate (cnewsome@skymail.csus.edu)
7. Catalog Editor (catalog@csus.edu)
8. Registrar's Office (k.mcfarland@csus.edu)
9. PeopleSoft (PeopleSoft@csus.edu)

Approval Path

1. Wed, 19 Feb 2025 06:13:09 GMT
   Andrea Becker (andrea.becker): Approved for HHS College Committee Chair
2. Wed, 19 Feb 2025 06:19:07 GMT
   Robert Pieretti (sac19804): Approved for HHS Dean

New Course Proposal

Date Submitted: Tue, 11 Feb 2025 05:36:16 GMT

Viewing: HLTH 171 : Artificial Intelligence In Healthcare

Last edit: Wed, 19 Feb 2025 06:13:04 GMT

Changes proposed by: Andrea Becker (101053364)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Andrea Becker	andrea.becker@csus.edu	916-278-2637

Catalog Title:
Artificial Intelligence In Healthcare

Class Schedule Title:
AI in Healthcare

Academic Group: (College)
HHS - Health & Human Services

Academic Organization: (Department)
Health & Human Services

Will this course be offered through the College of Continuing Education (CCE)?
Yes

Please specify:
CCE and Stateside

Catalog Year Effective:
Spring 2026 (2026/2027 Catalog)

Subject Area: (prefix)
HLTH - Health

Catalog Number: (course number)
171

Course ID: (For administrative use only.)
TBD

Units:
3

Is the ONLY purpose of this change to update the term typically offered or the enforcement of existing requisites at registration?
No

In what term(s) will this course typically be offered?
Fall, Spring, Summer

Does this course require a room for its final exam?
No, final exam does not require a room

Does this course replace an existing experimental course?
No

This course complies with the credit hour policy:
Yes

Justification for course proposal:
As AI continues to transform healthcare, integrating an AI in healthcare class into the BS in Health Science curriculum is essential for preparing students to navigate this evolving landscape. AI technologies, such as machine learning and predictive analytics, are improving diagnostics, patient outcomes, and clinical decision-making, making it crucial for future health professionals to understand these innovations. The course would equip students with the skills to assess, implement, and manage AI-driven technologies, addressing key areas like ethics, patient privacy, and data-driven care. Additionally, it would foster an interdisciplinary approach to healthcare, preparing students for high-demand careers in tech-enabled healthcare environments while promoting critical thinking and adaptability in response to continuous technological advancements. This foundational knowledge will ensure students are ready to contribute to the future of healthcare and drive innovation in the field.

Course Description: (Not to exceed 90 words and language should conform to catalog copy.)
This course introduces students to the concepts, technologies, and applications of Artificial Intelligence (AI) in healthcare and public health. Course content will focus on how AI is transforming healthcare by enabling advancements in diagnostics, treatment planning, personalized medicine, medical imaging, drug discovery, disease surveillance and prediction, and wearable devices. Students will gain an understanding of key AI methods, their practical applications, and the ethical considerations involved in deploying AI in healthcare contexts.

Are one or more field trips required with this course?
No

Fee Course?
No

Is this course designated as Service Learning?
No

Is this course designated as Curricular Community Engaged Learning?
No

Does this course require safety training?
No

Does this course require personal protective equipment (PPE)?
No

Does this course have prerequisites?
No

Does this course have corequisites?
No

Graded:
Letter

Approval required for enrollment?
No Approval Required

Course Component(s) and Classification(s):
Lecture

Lecture Classification
CS#02 - Lecture/Discussion (K-factor=1WTU per unit)
Lecture Units
3

Is this a paired course?
No

Is this course crosslisted?
Yes

Do they meet together and fulfill the same requirement?
Yes

Please identify the crosslisted course:
PUBH 171

Can this course be repeated for credit?
No

Can the course be taken for credit more than once during the same term?
No

Description of the Expected Learning Outcomes and Assessment Strategies:

List the Expected Learning Outcomes and their accompanying Assessment Strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers). Click the plus sign to add a new row.

	Expected Learning Outcome	Assessment Strategies
1	ELO #1: Describe the fundamental principles of contemporary AI and machine learning techniques.	Discussions Quizzes
2	ELO #2: Apply AI algorithms to healthcare data such as medical images, electronic health records (EHRs), and other types of health data.	Coding Assignments AI Project Presentation
3	ELO #3: Evaluate the benefits, limitations, and challenges of AI applications in healthcare.	Discussions Case Study
4	ELO #4: Examine the ethical implications of using AI in medical contexts.	Discussions Case Study
5	ELO #5: Gain practical experience with using AI tools to solve healthcare problems.	Coding Assignments AI Project Presentation

Attach a list of the required/recommended course readings and activities:
HLTH_171_Artificial_Intelligence_Healthcare_Syllabus.pdf

For whom is this course being developed?
Majors in the Dept
Majors of other Depts
Other

Is this course required in a degree program (major, minor, graduate degree, certificate?)
Yes

Has a corresponding Program Change been submitted to Workflow?
No

Identify the program(s) in which this course is required:

Programs:
BS in Health Science

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

Attach Accessibility Checklist: (Optional at submission. Fulfills requirement to file with Dean's office.)

HLTH_171_Course-accessibility-checklist.pdf

University Learning Goals

Undergraduate Learning Goals:

Competence in the disciplines
Knowledge of human cultures and the physical and natural world
Intellectual and practical skills
Personal and social responsibility
Integrative learning

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

GE Course and GE Goal(s)

Is this a General Education (GE) course or is it being considered for GE?

No

Key: 15267