



College of Nursing and Health Professions
Department of Public Health

HC 315 - Public Health Informatics

Location meeting and Class meeting schedule: Online Asynchronous
Credits: 3 Section: 1 Term: Fall 2026

Instructor Information



Instructor: Christopher Alvarado, MPH, CEP, CCRP

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Phone: N/A

Office Location: Henry Hall 117

Virtual Office Hours: Mondays and Fridays 9am-1pm HST or by appointment

Communication

Questions for this course can be emailed to the instructor using the Chaminade student email account provided. Demonstrate professionalism by including a subject line that properly summarizes the contents of the message. Proper salutation is appreciated. Online, in-person, and phone conferences can be arranged. Response time will take place up to 48 hours on business days; responses may be delayed on weekends or holidays.

College & Department Information

Public Health Program at the College of Nursing and Health Professions

Office Location:

3140 Waialae Avenue, Honolulu, Hawaii 96816

<https://chaminade.edu/nursing-health-professions/>

Phone: 808-739-8572

Course Description & Materials

Catalog Course Description

HC 315 Public Health Informatics: This course provides foundational knowledge relevant to public health informatics, highlighting the history, current and future use of informatics in public health settings, and gives students an understanding of the role and broad application of informatics to promoting health and preventing disease. Topics include the role of informatics in health promotion, use of informatics tools to understand behavior change, basic concepts of public health-specific communication, including technical and professional writing, and will address the application of ethical principles that apply to the use of information technology as those pertain to accessing, collecting, analyzing, using, maintaining, and disseminating data and information.

Pre-Requisites: ENG 102 and COM 101 are prerequisites for all upper division courses.

Time Allocation

The unit of semester credit is defined as university-level credit that is awarded for the completion of coursework. One credit hour reflects the amount of work represented in the intended learning outcomes and verified by evidence of student achievement for those learning outcomes. Each credit hour earned at Chaminade University should result in 45 hours of engagement. This equates to one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester, 10-week term, or equivalent amount of work over a different amount of time. Direct instructor engagement and out-of-class work result in total student engagement of 45 hours for one credit.

HC 315 is a three-credit hour course requiring 135 hours of student engagement, in accordance with the Chaminade University of Honolulu Credit Hour Policy. Students enrolled in this course will spend 45 hours reading and studying online material, 20 hours developing the two visual and oral presentations (Public Health Data Intelligence Briefing and Public Health Informatics Innovation Proposal), 20 hours on weekly engagement activities, and an additional minimum of 50 hours throughout the course completing weekly engagement activities, discussions, and responses, for a total of 135 hours.

Suggested Materials

Magnuson, J. A., & Fu, P. C., Jr. (2020). Public Health Informatics and Information Systems (3rd ed.). Springer. ISBN-13: 978-3030412142. This textbook is not required; it is offered as a suggested resource for students who would like additional reading to support their learning throughout the course.

Recommended Items

Course Website: <https://chaminade.instructure.com/>

Hardware Requirements:

Canvas is accessible from both PC and Mac computers with a reliable internet connection. You will also need to be able to access audio and video files. Subsequently, you should have access to speakers or headphones that allow you to hear the audio. A laptop computer or iPad with Microsoft Word, a Google application, and Zoom is recommended for efficiently accessing lectures and virtual meetings. It is helpful to keep your computer programs and applications updated, since some course activities use Google Drive and most quizzes and exams are taken on a computer.

Software Requirements:

You will need to have some ability to listen to audio in an mp3 format, watch videos in mp4 format, stream online videos, and read .pdf files. There are a number of free software online that can be downloaded for free. If you need assistance with locating software please feel free to contact the Chaminade Help Desk at helpdesk@chaminade.edu or (808) 735-4855.

Technical Assistance for Canvas Users:

- Search for help on specific topics or get tips in Canvas Student Guides
- Live chat with Canvas Support for students
- Canvas Support Hotline for students: +1-833-209-6111
- Online tutorials: select the "Students" role to access tutorials
- Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu or (808) 735-4855

Canvas (<https://chaminade.instructure.com>)

Canvas is a web-based learning management system, or LMS. It is used by learning institutions, educators, and students to access and manage online course learning materials and communicate about skill development and learning achievement. You will use canvas to get your weekly assignment, keep track of your grades, and turn in your work.

Learning Outcomes

Program Learning Outcomes (PLOs)

Upon completion of [degree program name], the student will be able to:

1. Utilize public health concepts to assess major health-related needs of diverse populations, addressing social determinants of health, and factors that contribute to morbidity and mortality through the design and development of interventions that promote health equity and reduce disparities.
2. Utilize evidence-based approaches to evaluate program outcomes and inform decision-making processes that prioritize service, justice, and peace in public health practice, while emphasizing the importance of using data and research to drive impactful, equitable, and sustainable public health interventions.
3. Analyze public health data using statistical, epidemiological and data visualization techniques, to generate products that support communication and decision-making related to public health interventions.
4. Investigate basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy, and the roles, influences, and responsibilities of the different agencies and branches of government.
5. Develop innovative sustainable public health strategies that address complex challenges, promote equity, and contribute to the achievement of the United Nations Sustainable Development Goals (SDGs), while fostering sustainable development practices locally and globally.

Course Learning Outcomes (CLOs)

By the end of HC 315 Public Health Informatics, the student will be able to:

1. Discuss the functions and operations of information technologies that have significant application to public health practice through weekly activities. (Aligns with PLO #1 & 2)
2. Develop foundational skills to design and evaluate behavioral informatics systems for health promotion and behavior change through weekly activities and a Public Health Informatics Project. (Aligns with PLO #2)
3. Demonstrate competency in public health specific communication through weekly activities and a Public Health Informatics Project. (Aligns with PLO #1 & 3)
4. Analyze the structure and utility of data standards, methods, and technology resources, including public health registries, within the public health domain through weekly activities. (Aligns with PLO #1)
5. Analyze current interventions and specify system design requirements to identify informational needs for future opportunities in the real-world public health setting through weekly activities. (Aligns with PLO #4)

The Eight Areas of Responsibility for Health Education Specialists

(NCHEC, HESPA II 2020)

- Area I: Assessment of Needs and Capacity (CLO #2 & 3)

- Area II: Planning (CLO #1, 2, & 3)
- Area III: Implementation (CLO #1 & 3)
- Area IV: Evaluation and Research (CLO #1 & 2)
- Area V: Advocacy (CLO #4)
- Area VI: Communication
- Area VII: Leadership and Management (CLO #2)
- Area VIII: Ethics and Professionalism

Marianist Values

This class represents one component of your education at Chaminade University of Honolulu. An education in the Marianist Tradition is marked by five principles and you should take every opportunity possible to reflect upon the role of these characteristics in your education and development:

1. Education for formation in faith.
2. Provide an integral, quality education.
3. Educate in family spirit.
4. Educate for service, justice and peace, and integrity of creation.
5. Educate for adaptation and change.

Marianist Values Integration

Students enrolled in HC 315 will receive an integral, quality education by developing their analytical skills through coursework. Students will also learn how adaptation is necessary in health informatics settings as technology evolves and processes improve. Students will be encouraged to view their future professional roles as a form of service that supports social justice, ethical decision-making, and responsible stewardship of health-related data.

Native Hawaiian Values

Education is an integral value in both Marianist and Native Hawaiian culture. Both recognize the transformative effect of a well-rounded, value-centered education on society, particularly in seeking justice for the marginalized, the forgotten, and the oppressed, always with an eye toward God (Ke Akua). This is reflected in the 'Ōlelo No'eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) — E ola au i ke akua ('Ōlelo No'eau 364) May I live by God.
2. Provide an Integral, Quality Education (Na'auao) — Lawe i ka ma'alea a kū'ono'ono ('Ōlelo No'eau 1957) Acquire skill and make it deep.
3. Educate in Family Spirit ('Ohana) — 'Ike aku, 'ike mai, kōkua aku kōkua mai; pela iho la ka nohana 'ohana ('Ōlelo No'eau 1200) Recognize others, be recognized, help others, be helped; such is a family relationship.
4. Educate for Service, Justice and Peace (Aloha) — Ka lama kū o ka no'eau ('Ōlelo No'eau 1430) Education is the standing torch of wisdom.
5. Educate for Adaptation and Change (Aina) — 'A'ohe pau ka 'ike i ka hālau ho'okahi ('Ōlelo No'eau 203) All knowledge is not taught in the same school.

Alignment of Course Learning Outcomes

	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5
Marianist Values	X	X	X	X	X
PLOs	X	X	X	X	X
Native Hawaiian Values	X	X	X	X	X
Gen Ed Learning Outcomes (if applicable)					

Course Activities

Discussions - 27%

A new topic is introduced on Monday morning for select weeks throughout the semester. After completing the required reading, each student will answer the discussion question related to the topic. Responses should be 300–400 words and are due Sunday at midnight. Each post is worth 10 points (9 discussions total, 90 points). No late work is accepted for discussions.

Class Assignments - 25%

There are 8 total class activities worth 10 points each (80 points total). Assignments are due Sunday at midnight. No late work is accepted.

Quizzes - 12%

Over the course of the semester, students will take 4 quizzes. Each quiz covers specific chapters and is worth 10 points (40 points total). Quizzes are multiple choice.

Presentation 1: Public Health Data Intelligence Briefing - 18%

This presentation takes the place of a formal midterm exam. Students will select a current public health issue and develop a professional visual presentation that analyzes the problem using public health data and surveillance information. The presentation should examine the population affected, trends, risk factors, health disparities, and key findings using evidence-based data visualizations. Students will deliver a recorded oral presentation summarizing their analysis and discussing the public health significance of their findings (60 points).

Presentation 2: Public Health Informatics Innovation Proposal - 18%

This presentation takes the place of a formal final exam. Building upon Presentation 1, students will develop a technology-driven solution that addresses the same public health issue through the application of public health informatics principles. The presentation should evaluate current information systems, identify existing gaps, and propose an innovative informatics solution to improve surveillance, prevention, intervention, or health outcomes. Students will deliver a recorded oral presentation explaining their proposed solution, implementation strategy, and anticipated public health impact (60 points).

Course Policies

Attendance

Even though this course is fully online, active participation is still essential. “Attendance” in an online class isn't about being physically present, it's about staying engaged, completing weekly activities, and participating in discussions on time.

What Attendance Looks Like in This Course:

To be counted as “attending” for the week, you must complete the following by Sunday at midnight (HST):

- Submit the weekly discussion post

- Complete any class assignments due that week
- Complete scheduled quizzes or exams
- Engage with course materials (readings, videos, modules)

Late Work

Late assignments in this course will receive a 10% deduction each day the assignment is missing. Students are encouraged to work ahead in case issues arise, so work is not late. Students are responsible for ensuring that assignments are submitted in the correct folder or drop-box, in the correct format, or the assignment is considered late. Any assignment due at midnight will be considered late if turned in after midnight. Once an assignment is one week late, it will receive a score of 0 unless a prior arrangement is made with the instructor. Discussions and Class Assignments do not accept late work at all, per the policies above.

Make-Up Work

Make-up arrangements for a missed quiz or presentation must be discussed with the instructor as soon as possible. Alternative dates or an alternative assessment may be arranged at the instructor's discretion, depending on availability and the circumstances of the absence.

Extra Credit

I do not offer extra credit. Please complete your course assignments.

Incomplete Grade

Grades of Incomplete must be reviewed and approved by both the Course Coordinator and the Dean of the College of Nursing and Health Professions. A grade of Incomplete (I) may be requested only in cases of documented emergencies or other extenuating circumstances that prevent a student from completing course requirements by the end of the semester, and only when the majority of coursework has already been completed satisfactorily. Students must contact the instructor before the end of the semester to discuss eligibility. See the university's "Grade of Incomplete" policy in the student handbook for further information.

Changes to the Syllabus

While the provisions of this syllabus are as accurate and complete as possible, your instructor reserves the right to change any provision herein at any time. Every effort will be made to keep you advised of such changes, and information about such changes will be available from your instructor.

Final Grades

Final grades are submitted to Self-Service:

- A = 90% and above
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 59% and below

Important Information

Academic Honesty

Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.

Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of

grades, plagiarism, and unauthorized and/or undisclosed AI usage, in addition to more obvious dishonesty. See catalog section Student Use of Artificial Intelligence in Academic Work for further information.

Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Dean of the Academic Division. Punishment for academic dishonesty will be determined by the instructor and the Dean of Academic Division and may include an “F” grade for the work in question, an “F” grade for the course, suspension, or dismissal from the University.

For the most up to date information, please refer to the Academic Honesty Policy on the Chaminade University Catalog website.

AI (Artificial Intelligence) Statement

Chaminade University recognizes the increasing role of artificial intelligence (AI) technologies in academic and professional environments. AI encompasses, but is not limited to, generative AI platforms, automated writing or content generation software, coding assistants, and similar tools. Students must ensure all submitted work genuinely reflects their knowledge and effort. Using AI to produce or significantly complete graded assignments, exams or other academic tasks — defined as use that substitutes for or substantially replaces a student's own analysis, reasoning or written expression — without explicit instructor approval is considered academic misconduct and will be dealt with according to the University's Academic Honesty Policy.

If an instructor has reasonable grounds to question whether submitted work genuinely reflects a student's own knowledge, authorship, or mastery of course material — or whether it meets the course's expectations for AI use — the instructor may require the student to provide additional or alternative evidence of authorship and content mastery. Such evidence may include drafts, notes, revision history, source materials, process explanations, oral discussion, in class work, or completion of an alternative assessment. A student's refusal or inability to provide such evidence may be considered, along with other available information, in evaluating whether the work meets course requirements and stated learning outcomes. Instructors will not rely solely on AI detection software or other automated tools in making grading or academic integrity determinations. Such determinations will be based on the totality of the available information and handled in accordance with applicable University policies and procedures. See the catalog section Student Use of Artificial Intelligence in Academic Work for further information.

Title IX and Nondiscrimination Statement

Chaminade University of Honolulu is committed to providing a learning, working and living environment that promotes the dignity of all people, inclusivity and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking. As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. For pregnant and parenting students, I am also obligated to provide you with similar resources for support and protections available to you. My goal is to make sure that you are aware of the range of options available to you and have access to the resources and support you need.

Contact information and reporting options: chaminade.edu/titleix/nondiscrimination/. File a report via the Campus Incident Report Form.

Nondiscrimination Policy & Notice of Nondiscrimination

The university is committed to comply with all State and Federal statutes, rules, and regulations which prohibit discrimination. The university is committed to a policy of nondiscrimination on the

basis of race, sex, gender identity and expression, age, religion, color, national origin (including shared ancestry and ethnic characteristics), ancestry, citizenship, disability, genetic information, marital status, breastfeeding, arrest and court record (except as permissible under State law), sexual orientation, or status as a covered veteran. Inquiries about Title IX or general Civil Rights concerns may be referred to the University's Title IX Coordinator, the U.S. Department of Education's Office for Civil Rights, or both and contact information may be found at chaminade.edu/titleix/nondiscrimination/. On-campus Confidential Resources may also be found at chaminade.edu/titleix/resources-and-support/.

The University's Nondiscrimination Policy and Grievance Procedures can be located on the University webpage at: <https://chaminade.edu/compliance/title-ix-nondiscrimination-policies-procedures/>.

To report information about conduct that may constitute sex discrimination or make a complaint of sex discrimination under Title IX, please refer to the Campus Incident Report form. Chaminade University of Honolulu prohibits sex discrimination in any education program or activity that it operates. The NOTICE of NONDISCRIMINATION can be found here: [Notice of Nondiscrimination](#).

CUH Alert Emergency Notification

To get the latest emergency communication from Chaminade University, students' cell numbers will be connected to Chaminade's emergency notification text system. When you log in to the Chaminade portal, you will be asked to provide some emergency contact information. If you provide a cellphone number, you will receive a text from our emergency notification system asking you to confirm your number. You must respond to that message to complete your registration and get emergency notifications on your phone.

Assessment for Student Work

With the goal of continuing to improve the quality of educational services offered to students, Chaminade University conducts assessments of student achievement of course, program, and institutional learning outcomes. Student work is used anonymously as the basis of these assessments, and the work you do in this course may be used in these assessment efforts.

Student with Disabilities Statement - Kōkua 'Ike

Accessibility Services recognizes disability as a valued aspect of diversity and ensures equal access to the educational environment in accordance with Section 504 of the Rehabilitation Act; the Americans with Disabilities Act, as amended; and the principles and professional standards of the Association on Higher Education and Disability. Access is supported through reasonable accommodations and referrals to campus and community resources.

Appointments with the Accessibility Services Coordinator are available through Stellic at chaminade.stellic.com and may be held virtually or in person. Drop-in appointments are also welcome.

Students seeking support must meet with the Accessibility Services Coordinator as early as possible, even if they are unsure whether they have appropriate documentation of their disability or its impacts. The Accessibility Services Coordinator prioritizes listening to students' experiences and will discuss any documentation needs during the initial intake meeting. Students may seek support at any time. Learn more at chaminade.edu/ada-accommodations.

Kōkua 'Ike: Tutoring & Learning Services

Chaminade is proud to offer free, one-on-one tutoring and writing assistance to all students. Tutoring and writing help is available on campus at Kōkua 'Ike: Center for Student Learning in a variety of subjects (including, but are not limited to biology, chemistry, math, nursing, English, etc.) from trained Peer and Professional Tutors. Please check Kōkua 'Ike's website for the latest times, list of drop-in hours, and information on scheduling an appointment. Free online tutoring is also available

via TutorMe. Tutor Me can be accessed 24/7 from your Canvas account. Simply click on Account > TutorMe. For more information, please contact Kōkua 'Ike at tutoring@chaminade.edu or 808-739-8305.

Campus Resources & Support Services

The following resources are available to all Chaminade students. Reach out early — these services exist to support your success.

Resource	Description	Contact / Website
Accessibility Services (Kōkua 'Ike)	Accommodations under Section 504 and ADA. Contact early — appointments via Stellic, virtual or in person.	chaminade.edu/ada-accommodations
Tutoring & Academic Coaching (Kōkua 'Ike)	Individualized support in English, math, nursing, sciences, and social sciences, plus guidance developing goals and study strategies.	tutoring@chaminade.edu · 808-739-8305
Career Services	Individualized job search strategy coaching, resume reviews, job interview coaching, and access to career-related resources and opportunities.	chaminade.edu/career-services
Basic Needs Resources	Support for food insecurity, housing instability, and other basic needs.	chaminade.edu/basic-needs/
Title IX / Nondiscrimination	Reporting and support for sex discrimination and gender-based violence. Campus Incident Report Form available online.	chaminade.edu/titleix/resources-and-support/
Hazing Prevention	Confidential support, crisis intervention, and reporting for any type of abuse including hazing.	hazingpreventionnetwork.org/athlete-helpline/
Campus Safety / SafeSwords	Security escort service for anyone who feels unsafe walking alone on campus at any time of day. Call security and a professional will escort you to your destination.	chaminade.edu/student-life/security/campus-safeswords-program/
CUH Alert Emergency Notification	Emergency text system. Register your cell number via the Chaminade portal and confirm the text to complete enrollment.	chaminade.edu

Course Schedule

Week	Dates	Topics	Assignments / Assessments (Due 11:59 PM HST)
1	Aug 17-23	Public Health Informatics: Introduction and History	Ch. 1 & 2; Discussion #1 - Due Aug 23
2	Aug 24-30	The Larger Context of Biomedical and Health Informatics; Government and Legislative Context; Introduction to Semester Project	Ch. 3 & 4; Discussion #2 + Class Assignment #1 - Due Aug 30
3	Aug 31-Sep 6	Role of Informatics Bridging Public and Population Health; Information Infrastructure to Support Public Health	Ch. 5 & 6; Quiz #1 (Ch. 1-4) - Due Sep 6
4	Sep 7-13	Data Sources and Data Tools; Public Health Information Standards (No in-person class Fri, Sep 11 — online instruction resources on Canvas)	Ch. 7 & 8; Discussion #3 + Class Assignment #2 - Due Sep 13

Week	Dates	Topics	Assignments / Assessments (Due 11:59 PM HST)
5	Sep 14-20	Privacy, Confidentiality, and Health Systems Security	Ch. 9 & 10; Discussion #4 + Class Assignment #3 - Due Sep 20
6	Sep 21-27	Electronic Health Records, Public Health Analysis, and Project Management	Ch. 11, 12 & 13; Quiz #2 (Ch. 5-10) - Due Sep 27
7	Sep 28-Oct 4	No Discussion This Week - Prepare Presentation 1	Presentation 1: Public Health Data Intelligence Briefing - Due Oct 4
8	Oct 5-11	Key Public Health Information Systems	Ch. 14, 15 & 16; Discussion #5 - Due Oct 11
9	Oct 12-18	Fall Wellness Week	No assignments due
10	Oct 19-25	New Means of Data Collection and Accessibility; Interoperability and Health Information Exchange	Ch. 17 & 18; Quiz #3 (Ch. 11-16) - Due Oct 25
11	Oct 26-Nov 1	Geographic Information Systems; Public Health Decision Support Systems	Ch. 19 & 20; Discussion #6 - Due Nov 1
12	Nov 2-8	Local and Regional Public Health Informatics; Public Health Informatics and the American Indian/Native Alaskan Population	Ch. 21 & 22; Quiz #4 (Ch. 17-20) + Class Assignment #4 - Due Nov 8
13	Nov 9-15	Advancing Informatics Policy and Practice; National Public Health Informatics	Ch. 23 & 24; Discussion #7 - Due Nov 15
14	Nov 16-22	Perspectives on Public Health Informatics; Improving Immunization Through Informatics	Ch. 25 & 26; Discussion #8 + Class Assignment #5 - Due Nov 22
15	Nov 23-29	Public Health Informatics: The Path Forward; Overview of Semester and What We Learned	Ch. 27; Discussion #9 + Presentation 2: Public Health Informatics Innovation Proposal - Due Nov 29
16	Nov 30-Dec 4*	Course Evaluation Week	Complete Course Evaluation Survey - Due Fri, Dec 4*

*Fall Semester last day of instruction is Fri, Dec 4; Finals Week runs Dec 7-10. Week 16 is a course evaluation week with no new academic assignments due.

Fall Wellness Week runs Mon, Oct 12 - Fri, Oct 16 (Week 9). No assignments are due that week.

There will be no in-person class on Friday, Sep 11 (Week 4). Online instruction resources will be posted on Canvas in its place.