



Course Syllabus

Chaminade University Honolulu

3140 Waialae Avenue - Honolulu, HI 96816

Course Number: BI 488-91 (cross-listed RE and PH 488)

Course Title:

Magic, Science, and Belief: The Global Quest for Health

Department Name: Biology

College/School/Division Name: Natural Sciences and Mathematics

Term: Fall 2026

Course Credits: 3

Class Meeting Days: Online

Class Meeting Hours: Online

Class Location: Online



Instructor Name: Dr. Helen Turner

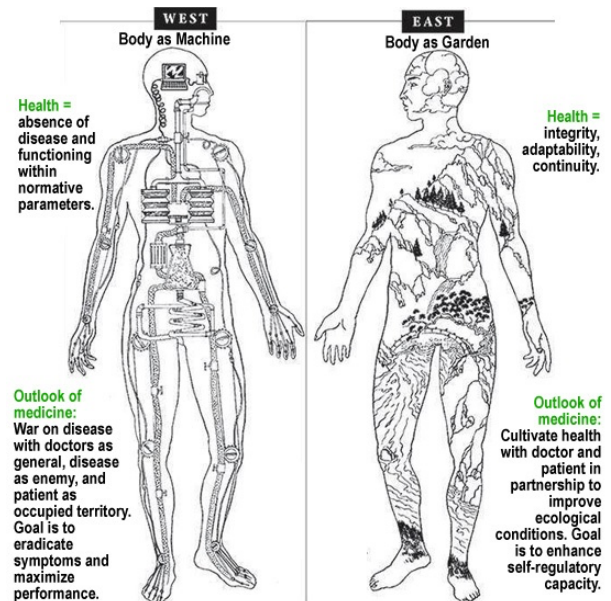
Email: hturner@chaminade.edu

Phone: 808 778 8920 (texting OK – please mention name and BI 488 in your text)

Office Location: Kieffer 26 (snacks generally available)

Office Hours: by appointment

(email me)



1. University Course Catalog Description

Magic, Science, and Belief: The Global Quest for Health (3). Designed to give students an interdisciplinary experience, this course will explore historical and contemporary theories and practice of medicine, examining in parallel ancient, modern, non-Western and Western views of health, disease and healing. *Pre-requisites:* senior standing or permission of instructor.

2. Course Overview

This course will examine the inter-relationship between ancient religions and medicine (e.g. shamanism, magico-medical healing) and the worldwide development of various cultural medical systems (CMS) and epistemologies. Students will journey through time studying the evolution of medical thought and practice across Indigenous, Asian, African and European cultures in the last several thousand years. We will compare theories of disease, treatment/intervention frameworks and connectivity with spiritual and supernatural practices of various CMS and contrast them with the development and advances of Western 'scientific medicine'. As we reach the current timeframe, we will examine what is 'lost in translation' when CMS and Western medicine interact, and explore the problematic aspects of cultural medicine appropriation by the nutraceutical industry. Finally, we will 'close the loop' by examining the contemporary resurgence and revaluing of CMS and the possibility of integrating this knowledge with Western medicine to create a holistic and effective integrative medicine. This is a **project-based** capstone course that integrates and applies knowledge learned throughout a student's time at Chaminade. Through in-class assignments and a capstone project, students will apply **Marianist and Native Hawaiian values** to real-world and personally meaningful questions, demonstrating **mastery of foundational skills** (critical thinking, logic, reasoning, and information literacy). The course fosters **global awareness**, engaging with diverse world views and perspectives. The course links to **Native Hawaiian values** and the Hawai'i-Pacific context through the examination of Pacific CMS and of the role of indigenous medicine as both ancestral knowledge and a contemporary response to health inequity. Grounded in **Marianist educational values** and the principles of Catholic Social Teaching, the course is focused on the inter-relationships between spiritual and medical approaches to health and disease and the problems of justice and injustice in healthcare.

3. 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
5. Educate for adaptation and change

4. 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 ‘Olelo No’eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) E ola au i ke akua (‘Olelo 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 (‘Olelo 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 (‘Olelo 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 (‘Olelo 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 (‘Olelo No’eau 203) All knowledge is not taught in the same school

5. Learning Outcomes

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

1. **Analyze** ancient, modern, non-Western and Western approaches to medicine, emphasizing differences and similarities across time, cultures, geography, and epistemologies. (*Gen Ed Alignment: Global Awareness*)
2. Applying an interdisciplinary approach, **compare and contrast** spiritual and medical approaches to health and disease in various cultures (*Gen Ed Alignment: Values: Integral (Holistic) Education/Global Awareness; Values: Education for Formation in Faith*)
3. **Evaluate** the roles of reason and belief in personal, community and societal understandings of health, disease and medicine (*Gen Ed Alignment: Values: Integral (Holistic) Education/Global Awareness, Values: Education for Formation in Faith*)
4. By examining the historical roots and contemporary resurgence of Traditional, Complementary and Integrative (TCI) Medical Systems, **evaluate** their potential for synthesis with modern Western medicine in support of holistic and equitable healthcare. (*Gen Ed Alignment: Skills or Educational Foundations: Critical Thinking*)
5. By **integrating** diverse sources of evidence, viewpoints and epistemologies, **evaluate** the potential of TCI Medical Systems for synthesis with modern Western medicine in support of holistic and equitable healthcare. (*Gen Ed Alignment: Skills or Educational Foundations: Critical Thinking*)
6. Demonstrate mastery of foundational skills (critical thinking, logic, reasoning, and information literacy) and application of Marianist and Native Hawaiian values through in-class assignments and a capstone project (*Gen Ed Alignment: Capstone GELO*).

5. Alignment of Gen Ed and Course Learning Outcomes

GELO Category	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5	CLO 6
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Skills or Educational Foundations				Critical Thinking	Critical Thinking, Information Literacy	Critical Thinking, Information Literacy
Marianist Values	Integral (Holistic) Education/ Global Awareness	Integral (Holistic) Education/ Global Awareness	Integral (Holistic) Education/ Global Awareness Education for Formation in Faith			
Integrative Interdisciplinary Experience	Capstone	Capstone	Capstone	Capstone	Capstone	Capstone

6. Course Prerequisites

Senior standing or permission of instructor.

7. Required Learning Materials

- Reading materials are assigned per week and provided on Canvas

8. Course Website:

<https://chaminade.instructure.com/courses/29701>

9. Course Outline

Section	Topic	Activity	Assignments	POINTS
MODULE 1 Week 1	Introduction to the course	1.1. Watch faculty introduction video	1.1. Discussion post: your interest in the course, what you hope to learn	25
	Introduction to Traditional, Complementary and Integrative Medicine (TCI)	1.2. Watch https://www.who.int/health-topics/traditional-complementary-and-integrative-medicine# and read this article https://www.nature.com/articles/d41586-023-02636-z	1.2. Worksheet: Answers to these questions: (1) Why do you think such a center is necessary? (2) Can you suggest 3 differences between the Western and Traditional medicines that the video alludes to based on your current understanding of the two terms? (3) Give three examples of how you think Western and Traditional medicine relate to one another in practice in the US today. (4) How do you think they relate in a developing country?	50
		1.3. Download this report: https://www.who.int/publications/i/item/9789241506096 and read Chapters 1 and 3	1.3. Worksheet: Tell us three things that surprised you when reading Chapters 1 and 3.	25
MODULE 2 Week 2	Magic, religion and science: epistemologies of human suffering and healing	2.1. Watch Lecture A.	2.1. Reflect. What surprised or interested you most in this lecture? What questions and thoughts do you have after listening?	25
		2.2. Read these blog posts: https://blogs.loc.gov/headlinesandheroes/2022/04/10-strange-medical-practices-from-history/ https://www.healthline.com/health/old-medical-treatments-make-your-stomach-turn	2.2. Worksheet: Choose an ailment (it could be one you have experienced). (a) Tell me how you think it would have been diagnosed and treated 50 years ago, 100 years ago, 1000 years ago, and 10 000 years ago. (b) Tell me what treatment you think you would get for this ailment in the following loations, compare and contrast these different situations • Here in Hawai'i today • In China today • In Sudan today	50
		2.3. Medicine and Me evaluation	2.3. Worksheet. Complete the Medicine and Me worksheet.	25

MODULE 3 WEEK 3	Exploring the relationship between TCI and Western medicine: <i>dismissal, integration, appropriation</i>	3.1. Watch Lecture B	3.1. Reflect. (a) Describe one concept from the lecture that challenged or expanded your previous understanding of medicine or healing. (b) Explain how this concept connects to an example from your own life, community, or a current healthcare issue. (c) Identify one question raised by the lecture that you believe cannot be answered by science alone. Explain your reasoning.	25
		3.2. Read 'Medicine in Motion' paper	3.2. Worksheet: Post a brief reflection on this paper. What surprised or interested you most in this paper? What questions and thoughts do you have after reading?	25
		3.3. Read this paper: https://www.jstor.org/stable/43290366?seq=7	3.3. Worksheet: Post a brief reflection on this paper. What surprised or interested you most in this paper? What questions and thoughts do you have after reading?	25
MODULE 4 WEEK 4	Medicine in Motion Case Study	4.1. Present a case study of a TCI medicine that has become adopted by mainstream Western Medicine	4.1. MAJOR ASSIGNMENT 1: Create a Powerpoint video of your case study, using the provided template. Post your completed video Powerpoint.	200
MODULE 5 WEEK 5	Medical Systems I: The West	5.1. Watch Lecture C	5.1. Reflect. (a) What assumptions did you bring into this topic? (b) Were they confirmed, challenged, or changed? Explain. (c) What evidence influenced your thinking most?	25
		5.2. Read this article https://www.sciencedirect.com/science/article/pii/S2095754820300545	5.2. Reflect. What surprised or interested you most in this paper? What questions and thoughts do you have after reading?	25
MODULE 6 WEEK 6	Medical Systems II: The East	6.1. Watch Lecture D and read this paper https://www.mdpi.com/2227-9032/9/3/257	6.1. Reflect. (a) Describe one idea that connects this week's material (the lecture and the paper) to a previous week's topic. (b) Explain why that connection is meaningful. (c) What new question does this connection raise?	25

			6.2. MAJOR ASSIGNMENT 2: Medical Systems Comparison Table. To be completed across weeks 6-9). Start building comparison worksheet that compares and contrasts what you know so far of Western and Asian (Chinese, Japanese, Korean) medical systems. How are they similar, how do they differ?	200

MODULE 7 WEEK 7	Medical Systems III: India	7.1. Watch Lecture E videos and Read these materials: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4691612/pdf/JDR2016-6979370.pdf	7.1. Reflect. (a) Describe one real-world situation where this week's TCI system could influence healthcare in the US. (b) What factors would make applying these ideas difficult? (c) What additional information would you need before making a recommendation?	25
			7.2. MAJOR ASSIGNMENT 2: Medical Systems Comparison Table. To be completed across weeks 6-9). Continue building comparison worksheet (under assignment 6.2) that compares and contrasts Indian medicine with what you know so far of Western and Asian (Chinese, Japanese, Korean) medical systems. How are they similar, how do they differ?	
MODULE 8 WEEK 8	Medical Systems IV: Africa	8.1. Watch Lecture F videos and Review these reports: The wikipedia page on Traditional African Medicines and https://www.sciencedirect.com/science/article/abs/pii/S0378874118323857?via%3DiHub	8.1. Reflect. (a) Identify two different perspectives on medicine or healing presented (or implied) in this week's materials. (b) Where do these perspectives agree, and where do they differ? (c) Why is it important to understand both perspectives before forming an opinion	25
			8.2. MAJOR ASSIGNMENT 2: Medical Systems Comparison Table. To be completed across weeks 6-9). Continue building reflection worksheet (under assignment 6.2) that compares and contrasts African medicine with what you know so far of Western and Asian (Chinese, Japanese, Korean), Indian medical systems. How are they similar, how do they differ?	

		https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0105972&type=printable		
WEEK 9	Wellness Week		No assignments this week – I will send a notification of a fun activity	
WEEK 10	Medical Systems IV: Indigenous medicine	10.1. Watch Lecture G and . Read this article	10.1. Reflect. What surprised or interested you most in this lecture? What questions and thoughts do you have after listening?	25
		https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7425891/	10.2. MAJOR ASSIGNMENT 2: Medical Systems Comparison Table. To be completed across weeks 6-9). Complete your comparison worksheet (under assignment 6.2) that compares and contrasts Indigenous medicine with what you know so far of Western, Asian (Chinese, Japanese, Korean), Indian and African medical systems. How are they similar, how do they differ? Polish and submit by end of semester	
WEEK 11	Mind, body and spirit:	11.1. Watch Lecture H.	11.1. Reflect. (a) Identify one claim that stood out to you from this week's materials and discuss how you feel about that claim? (b) What evidence supports the claim? (c) What additional evidence would make you more confident in it?	25
WEEK 12	Pitfalls, pseudoscience and misinformation: Critical evaluation of TCI and Western medicine evidence	12.1. Watch Lecture I	12.1. Reflect. (a) What idea stood out to you from this week's lecture videos? (b) What main ideas from this course will you remember six months from now? (c) Why do you think those will stay with you? (d) How has your understanding changed since the beginning of the course?	25
WEEKS 13-15	These weeks are dedicated to the writing of your capstone paper and finishing up other major assignments.		13.1. CAPSTONE PAPER: Assignment 13.1: Integrative Medicine Position Paper	800 100

10. Assignments and Grading

Here's how your grade breaks down:

			POINTS	Approx % of grade
Reflections/minor assignments			475	28%
Major Assignment 1			200	12%
Major Assignment 2			200	12%
Capstone Paper			800	48%
		total	1675	100

Letter grades are given in all courses except those conducted on a credit/no credit basis. Grades are calculated from the student's daily work, class participation, quizzes, tests, term papers, reports and the final examination. They are interpreted as follows:

- | | | |
|----------|-----------------------|---|
| A | 900 points or greater | Outstanding scholarship and an unusual degree of intellectual initiative |
| B | 800-899 points | Superior work done in a consistent and intellectual manner |
| C | 700-799 points | Average grade indicating a competent grasp of subject matter |
| D | 600-699 points | Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work |
| F | 599 points or fewer | Failed to grasp the minimum subject matter; no credit given |

11. Policies, Guidance and Assistance

11.1. Technical Assistance for Canvas Users:

- Search for help on specific topics or get tips in [Canvas Students](#)
- [Live chat with Canvas Support for students](#)
- Canvas Support Hotline for students: +1-833-209-6111
- Watch this [video to get you started](#)
- [Online tutorials](#): click on "Students" role to access tutorials
- Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu or call (808) 735-4855

11.2. Tutoring and Writing 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 (<https://chaminade.edu/advising/kokua-ike/>) 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 Account – Notifications – TutorMe. For more information, please contact Kōkua 'Ike at tutoring@chaminade.edu or 808-739-8305.

11.3. Late Work Policy

Requests for extensions due to extenuating circumstances (documented computer or medical problems, for example) will be considered but in general work received after the deadline will not be graded (i.e., will receive a score of zero).

11.4. Grades of "Incomplete"

Should you encounter a significant medical or personal event that prohibits you from completing the course requirements within the time that is allocated for this course, an incomplete grade can be given. Issuance is not automatic, and is at the discretion of the faculty member. An incomplete grade may be assigned to a student who has successfully completed with at least a passing grade the majority of the work of the course, and who has an unavoidable and compelling reason why the remainder of the work cannot be completed on schedule.

11.5. Writing Policy

Guidance on written assignment formatting and citation style will be provided in class.

11.5. Instructor and Student Communication

Questions for this course can be emailed to the instructors. Online, in-person and phone conferences can be arranged. Response time will take place up to 24 hours..

11.6. Disability Access

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from Kōkua 'Ike: Center for Student Learning by the end of week three of the class, in order for instructors to plan accordingly. If a student would like to determine if they meet the criteria for accommodations, they should contact the Kōkua 'Ike Coordinator at (808) 739-8305 for further information (ada@chaminade.edu).

11.7. Title IX Compliance

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

11.8. Attendance Policy

The following attendance policy is from the Academic Catalog: Faculty members should also check with their divisions for division-specific guidelines. "Students are expected to attend regularly all courses for which they are registered. Student should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling

the instructor's campus extension, or by leaving a message with the instructor's division office. It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially withdrawing may receive a failing grade. Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course by the instructor, although the instructor is not required to withdraw students in that scenario. Repeated absences put students at risk of failing grades. Students with disabilities who have obtained accommodations from the Chaminade University of Honolulu Tutor Coordinator may be considered for an exception when the accommodation does not materially alter the attainment of the learning outcomes. Federal regulations require continued attendance for continuing payment of financial aid. When illness or personal reasons necessitate continued absence, the student should communicate first with the instructor to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn by the instructor at the instructor's discretion.

11.9. Academic Conduct Policy

From the 2019-2020 Undergraduate Academic Catalog (p. 39):

Any community must have a set of rules and standards of conduct by which it operates. At Chaminade, these standards are outlined so as to reflect both the Catholic, Marianist values of the institution and to honor and respect students as responsible adults. All alleged violations of the community standards are handled through an established student conduct process, outlined in the Student Handbook, and operated within the guidelines set to honor both students' rights and campus values. Students should conduct themselves in a manner that reflects the ideals of the University. This includes knowing and respecting the intent of rules, regulations, and/or policies presented in the Student Handbook, and realizing that students are subject to the University's jurisdiction from the time of their admission until their enrollment has been formally terminated. Please refer to the Student Handbook for more details. A copy of the Student Handbook is available on the Chaminade website. For further information, please refer to the Student Handbook: <https://chaminade.edu/wp-content/uploads/2019/08/NEW-STUDENT-HANDBOOK-19-20-Final-8.20.19.pdf>

11.10. Credit Hour Policy

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 time of 45 hours for one credit. The minimum 45 hours of engagement per credit hour can be satisfied in fully online, internship, or other specialized courses through several means, including (a) regular online instruction or interaction with the faculty member and fellow students and (b) academic engagement through extensive reading, research, online discussion, online quizzes or exams; instruction, collaborative group work, internships, laboratory work, practica, studio work, and preparation of papers, presentations, or other forms of assessment. This policy is in accordance with federal regulations and regional accrediting agencies. The minimum 45 hours of engagement per credit hour can be satisfied in fully online, internship, or other specialized courses through several means, including (a) regular online instruction or interaction with the faculty

member and fellow students and (b) academic engagement through extensive reading, research, online discussion, online quizzes or exams; instruction, collaborative group work, internships, laboratory work, practica, studio work, and preparation of papers, presentations, or other forms of assessment. This policy is in accordance with federal regulations and regional accrediting agencies.

This is a three-credit hour course requiring 135 clock hours of student engagement, per the official CUH Credit Hour Policy. Students enrolled in this course are anticipated to spend 135 hours working on the class:

- 1 hour each for 9 video lectures (~10 hours total)
- 35 hours in total on discussions and response/reflection assignments
- 15 hours researching and writing Major assignment 1
- 40 hours researching and writing Major assignment 2
- 40 hours researching and writing Capstone Research paper

11.11. 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.

11.12. Regular and Substantive Engagement – online course.

The instructor will typically respond to email within 24 hours during the week, 48 hours at weekends. Regular discussions/prompts will be offered during the class for additional engagement beyond feedback and discussion around specific assignments provided as part of the grading process. Open online office hours will be scheduled bi-weekly and may be requested at any time on a one-on-one basis.