

Integrating Jesuit Values in the Online Master of Science (MS) in Health Economics and Clinical Outcomes Research (HECOR) Program

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Opportunity Statement:

Like all Jesuit, Catholic Universities, Xavier students and faculty are women and men working together, in solidarity for others. All Xavier University students are expected to explore spirituality and apply the gifts of our Ignatian heritage to our work, our lives and our service to others. ^{1,2} Graduate students in an online environment have the advantage of personal and professional experience and multicultural peers. However, both graduate school and the online environment present additional challenges to engage students in our mission. To meet these challenges, the purpose of this project is to support graduate student growth through inter-professional team work while integrating ethics, global epidemiology and affordable, effective, high-quality healthcare with Ignatian pedagogy.

Background:

Adult learners are more motivated by their intrinsic values, compared to extrinsic incentives, such as grades. ³ Student learning outcomes (SLOs) in the ethics domain of a healthcare program provide intrinsic value. Interleaving is a pedagogical method based on cyclical repetition and application, and is used to improve retention of knowledge and skills. ⁴ Applied across four healthcare courses, over 24 months, and multiple content areas, students are expected to explore and expand their intrinsic motivators.

Health services research provides ample motivation for service and the application of professional ethics. Health services research is the branch of public health that compares the effectiveness, quality and cost of health treatments, care and management. We teach applied population health to support community well-being, through partnerships and service to diverse and underserved populations. By improving healthcare processes and sustainable outcomes, we create a reliable space where patients benefit, physicians and nurses want to practice and healthy communities thrive. By doing this efficiently, we can care for and serve everyone.

Recently approved in 2015, the MS in Health Economics and Clinical Outcomes Research (HECOR) program is in the Department of Health Services Administration in the College of Professional Sciences. Priority foci include population health, management and inter-professional education. HECOR students are in a high-growth "space" with the potential to impact global health systems and serve the needs of others. ⁵ Four MS-HECOR courses were identified as appropriate initial entry points for incoming students. All graduate-level courses are now offered online and in English. From the 2018 spring course catalogue:

HECO 471 and HECO 571 Introduction to HECOR is a merged, dual-level course offered face-to-face on Xavier's main campus. **HECO 571** is offered online. These courses expose students to an overview of health economics and clinical outcomes research. Contemporary approaches to comparative effectiveness research are introduced. Topics represent major themes in the field and each topic provides students with the opportunity to develop their understanding of the field, as well as learn how economists, epidemiologists and statisticians think about and conduct research.

HECO 567 Applied Epidemiology: Knowledge and skills useful to health service managers related to population health management, and also managerial epidemiologic analyses and assessment of medical care processes/outcomes are taught. Epidemiology is defined and its applications in health services management and health policy are discussed. Population based epidemiologic assessment methods are presented and utilized. ⁶ Methods for assessing outcomes of health programs are discussed. Students are introduced to the application of risk factor epidemiological literature in health services management through an applied project.

HECO 583, 584, 585 Ethical Health Informatics and Ethical Health Research will be merged to create a 3 credit hour course: This course is a graduate level introduction to basic ethical theory, language and methodology to critically examine contemporary cases in health informatics and health data use, such as patient confidentiality, large-scale data management, fraud and retrospective analyses. Students will investigate ethical and practical issues by participating in and leading discussion, and written reflective case analysis. ⁷

HECO 631 Global Health Systems: This course examines the structure of health care systems in different countries, focusing on financing; organization of delivery systems; reimbursement of physicians, hospitals and pharmaceuticals; and adoption of new technologies. We study the relative roles of private and public sector payers and providers and the effect of system design on cost, quality, efficiency and equity of medical services. Topics covered will include assessment of public and private systems, regulations involved for the introduction of new technologies/pharmaceuticals/biologics, and market access. Regions covered will include developed systems such as the United States, Germany, France, Italy, UK, Canada, Korea, and Japan and developing systems such as India, Brazil, the Middle East, and China. We will make epidemiological comparisons between these systems with a focus on clinical outcomes, satisfaction, and cost. ⁸

Clinical outcomes researchers are represented by numerous organizations with codes of ethics. ^{9,10} Health economics is a relatively new field. The melding of "big data" with these two increasingly important fields presents researchers and analysts with challenges. MS-HECOR students are asked to reflect upon the need to apply a deep knowledge of logical ethical frameworks to discern best practices when confronted by differing stakeholder needs.

The overall objective of this project is to integrate Jesuit values into online graduate courses in the MS in HECOR program to improve long-term engagement in the mission.

Plan:

1. Add student learning outcomes (SLOs) in the ethics domain to each course identified as an initial entry course (see Table 1)
2. Create and pilot ethics and Jesuit values modules, videos and assignments for all sections of the HECO 471-571 and HECO 571 Introduction to HECOR course
3. Over 12months, create online modules integrating ethics and Jesuit values for each course

Table 1: Student Learning Outcomes

Student Learning Outcomes for the Ethics and Research Domain in the Health Economics and Clinical Outcomes Research (HECOR) Program

	HECO 567 Applied Epidemiology	HECO 571 Introduction to HECOR	HECO 585 Health Ethics in Informatics and Research	HECO 631 Global Health Systems
Articulate ethical issues surrounding decision making in health care		X	X	X
Identify, articulate, and apply values, principles, and a code of ethics to decision making			X	
Demonstrate the skills necessary to make informed, ethical decisions in complex, conflicting, or ambiguous situations	X		X	
Recognize, identify, and evaluate inherent moral conflicts between professional ethics, population and individual outcomes in health care	X	X	X	

Modules:

Modules incorporating SLOs in the Ethics domain were developed to complement the content of each course. The ethics modules for HECO 571 and HECO 471-571 Introduction to HECOR were developed and taught during 2017 Fall term. Student work from that course is available for analysis. The ethics module for HECO 567 Applied Epidemiology was developed and is available in [Addendum 1](#). The ethics module for HECO 631 Global Health Systems is in development, and is available in [Addendum 2](#).

HECO 571 and HECO 471-571 Introduction to Health Economics and Clinical Outcomes Research

Module: What is "Ethics?"

In this module, we will define ethics, learn several ethical models and analyze a health information case study using an ethical decision matrix. You will understand the process of ethical decision-making in relation to health information management.

After completing this module, you will be able to:

- Define ethics and related terminology
- Contrast common ethical models
- Apply an ethical decision matrix tool
- Analyze a case study
- Evaluate conflicts between stakeholders in health data management

Read: Ethical Decision-Making Guidelines and Tools

In this reading, you will learn the difference between values and ethics, common ethical models and how to apply a decision-making matrix tool to a complex clinical scenario.

Watch: Ethical Frameworks: What is "Ethics?" **with Dr. Eileen Alexander**

In this short presentation, you will learn how personal values and professional ethics differ.

[Click here to go to the video](#)

Watch: Ethical Frameworks: Common ethical frameworks **with Dr. Eileen Alexander**

In this short presentation, you will learn terminology and concepts of four commonly applied ethical frameworks: non-maleficence, beneficence, autonomy and justice.

[Click here to go to the video](#)

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Watch: Ethical Frameworks: More ethical frameworks **with Dr. Eileen Alexander**

In this short presentation, you will learn terminology and concepts of additional ethical frameworks.

[Click here to go to the video](#)

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Watch: Ethical Frameworks: Steps in the ethical decision-making process **with Dr. Eileen Alexander**

In this short presentation, you will learn a pragmatic matrix for ethical decision-making.

[Click here to go to the video](#)

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Discussion: Scenario: Decision Making for an Adolescent Part 1

In this Discussion, you will begin the process of applying an ethical decision-making matrix. After reading Scenario 2-A Decision Making for an Adolescent in Ethical Decision-Making Guidelines and Tools, by Jacqueline J. Glover, PhD, respond to the Questions listed below.

Harman LB, Cornelius F. Ethical Health Informatics, Ch. 1. Jones and Bartlett Publishers; 2015.

Initial post: Questions to address:

1. What is the ethical question?
2. What is your "gut" reaction?
3. What are the facts?
4. What other information do you wish you had?

Response post instructions: After creating your discussion board post, respond to two or more classmates' posts. Specifically:

1. Find something one of your classmates wrote that you didn't include in your post. This should be something you see as being accurate and of value. Describe what this item is, and why you see it as valuable.
2. Indicate how this item adds to your understanding

Grading: Your post and response will be graded related to its:

1. Completeness: Did you answer each question?
2. Style, readability and depth of insight
3. Grammar, spelling, etc. Is your post written well and grammatically correct?

Discussion: Scenario: Decision Making for an Adolescent Part 2

In this Discussion, you will continue the process of applying an ethical decision-making matrix. After reading Scenario 2-A Decision Making for an Adolescent in Ethical Decision-Making Guidelines and Tools, by Jacqueline J. Glover, PhD, respond to the Questions listed below.

Harman LB, Cornelius F. Ethical Health Informatics, Ch. 1. Jones and Bartlett Publishers; 2015.

Questions to address:

1. List each stakeholder's values and the associated ethical model:
 1. Patient
 2. Parents
 3. Clinical professionals
 4. Hospital administration and health information managers
 5. Society
2. Describe at least one pair of conflicting values

Response post instructions: After creating your discussion board post, respond to two or more classmates' posts. Specifically:

1. Find something one of your classmates wrote that you didn't include in your post. This should be something you see as being accurate and of value. Describe what this item is, and why you see it as valuable.
2. Indicate how this item adds to your understanding

Grading: Your post and response will be graded related to its:

1. Completeness: Did you answer each question?
2. Style, readability and depth of insight
3. Grammar, spelling, etc. Is your post written well and grammatically correct?

Module: Integrating Jesuit Values in Bioethics

You have learned that ethics is a structured way to take action when several stakeholders and frameworks suggest divergent choices. Your "gut" tells you that a situation requires additional insight. Your personal experience, "frame of reference" and learned values are insufficient to address professional laws, ethics and new, frequently unique, situations.

As a first step to integrate bioethical reasoning with health outcomes research, consider the foundation of a Jesuit education. We will return to ethics and Jesuit values frequently throughout the program. For example, consider the ethical implications of being a competent analyst, supporting high-level healthcare policy decisions!

The Xavier Center for Mission and Identity has excellent resources. [These values and gifts of our Ignatian heritage can be found here](#)

MISSION invites us to understand the history and importance of our Jesuit heritage and Ignatian spirituality. Mission focuses on the centrality of academic excellence, grounded in a Catholic faith tradition.

REFLECTION invites us to pause and consider the world around us and our place within it.

ESA: Healthcare and research require study and close reading, i.e., reflection, to pause and consider the level and sources of knowledge, as we consider our position on important issues.

DISCERNMENT invites us to be open to God's spirit as we consider our feelings and rational thought in order to make decisions and take action that will contribute good to our lives and the world around us.

ESA: Bioethics invites us to discern among different stakeholders' viewpoints, different ethical frameworks and actions, all of which are good and true.

SOLIDARITY and **KINSHIP** invites us to walk alongside and learn from our companions, both local and afar, as we journey through life.

ESA: As is the case at all Jesuit, Catholic universities, students and faculty are women and men working together, in solidarity for others.

SERVICE ROOTED IN JUSTICE AND LOVE invites us to invest our lives into the well-being of our neighbors, particularly those who suffer injustice.

ESA: Community service learning and field-based research projects support the quadruple aim in healthcare. For all projects we reflect on high-level research and ask, "Does this support quality healthcare? Does this make healthcare more affordable for all? Does this support access to care? Does this increase satisfaction for clinical providers and staff?"

CURA PERSONALIS invites us to care for others, recognizing the uniqueness and wholeness of each person.

ESA: How shall we integrate the uniqueness of each person, patient and student with reliable and valid population-based processes, management and decisions? How shall we use predictive models to advise individuals?

MAGIS invites us to ask, "Where is the universal good?" when making decisions; it relates to the Jesuit motto, *For the Greater Glory of God*.

ESA: We are called to do more, to find within ourselves the strength to give a little more, work a little harder, be a little kinder, and to accept responsibility beyond basic law and our personal needs.

When you have a few minutes to reflect, review [the website](#)

To get started, look up a few terms:

Ignatian Pedagogical Paradigm

Ignatian Vision

Read: See [Lighting the Way: Incorporating Jesuit Values as a Graduate Student](#)

In the next module, you will learn about population health.

You will be asked to integrate bioethical reasoning, population health and Jesuit values.

Module: Population Health (abridged)

Refer to Module: Population Health

Refer to Module: Integrating Jesuit Values in Bioethics

Discussion: Integrating HECOR, Population Health and Bioethics with Jesuit Values

Health Services Research is the branch of public health that compares the effectiveness, quality and cost of health treatments, care and management. We teach applied population health to support community well-being, through partnerships and service to diverse and underserved populations. By improving processes and sustainable outcomes, we create a reliable space where patients benefit, physicians and nurses want to practice and healthy communities thrive. By doing this efficiently, we can care for and serve everyone.

Initial post: Learning is the result of both reflection and experience. Which one of the Jesuit values speaks to you? Choose quickly, and then describe a personal experience that resonates with your interest in a HECOR graduate degree.

Response: Read your classmates' choice of Jesuit values and their personal experiences.

Reflect upon their choices, and motivations. Reflect upon the Module materials. Consider the dual meanings of population health, in terms of the five categories of contributors to health and also management of populations. Consider your career path, interests and your professional ethical values.

Response post: Write a personal mission statement:

An example: my current mission statement is: Supporting healthy families and populations through teaching, team service, global epidemiology and quality healthcare

Grading: Your post and response will be graded related to its:

1. Completeness: Did you answer each question?
2. Style, readability and depth of insight
3. Grammar, spelling, etc. Is your post written well and grammatically correct?

Thank you very much for your time, attention and thoughtful sharing this semester. I have enjoyed reading them and learning about each of you.

In later courses, you will again be asked about these values. New personal and professional experiences, and your new education, will likely inform and alter your choices. You will work through case studies that challenge you to consider various stakeholders and ethical frameworks. You will be asked to take on stakeholder roles that are not your own.

HECO 571 Introduction to Health Economics and Clinical Outcomes Research- Introduce all 6 Jesuit values. How does personal experience and frame of reference inform our views now? How will our professional ethics differ now, and in future? Focus on population health and reflection.

HECO 567 Applied Epidemiology- Focus on scientific reflection, population-based solidarity and kinship.

HECO 585 Ethical Research and Informatics- Focus on discernment amongst multiple "goods."

HECO 631 Global Health Systems- Focus on all 6 Jesuit values, reflection and research. How have our views, interests and professional ethics grown and changed? How do our analyses and decisions change the world?

Results:

Table: Results of Discussion Assignment: Integrating HECOR, Population Health and Bioethics with Jesuit Values

Student	Course	Initial post: Value and experience	Response Post: Personal mission statement, as written by each student
1	HECO471-571 main campus	Discernment	"My mission is to become a successful healthcare professional and impact the worldwide market of healthcare. I want to become a better person each day and learn from my mistakes and from others mistakes. I would like to be a voice for the voiceless and use my platform to improve global health outcomes. I would like to extend quality, accessible, and affordable healthcare to all citizens."
2	HECO471-571 main campus	Cura personalis	"My purpose in life is to positively change the health outcome for those who are marginalized. I am determined to do this by taking care of the cura personalis and build communities filled with multicultural personals. These communities consist of people who have tapestry intertwined with many threads equal in shape, sizes and color. I am driven to understand these delicate threads and stand in

Student	Course	Initial post: Value and experience	Response Post: Personal mission statement, as written by each student
			solidarity with the pieces that are being underrepresented. I am determined to keep on learning and furthering my education in things that I am unknown to. I aspire to make a change and continuing serving others with the core values of love, compassion, and justice. "
3	HECO471-571 main campus	Reflection	My mission is to live a life of integrity, honesty, empathy, and love. I will strive to be a positive force in the lives of others. My mission is to give back to my community through healthcare, education, empowerment, and service. Learn something new every day! I will expand the things I know through both education and experiences alike, to increase my awareness of the world around me. I will never lose sight of what's important and value those around me.
4	HECO471-571 main campus	Service rooted in justice and love	Living my life and utilizing my life work to facilitate empowerment and autonomy to individuals, especially to those in situations where there is an imbalance of power. Through fundamental work and grass root efforts, create an environment where accessible and quality healthcare and healing can be attained by all.
5	HECO471-571 main campus	Unsure- Magis?	To live each day with passion, faith, knowledge, good works and integrity through continual personal progress and education, honesty, an open mind and belief. To keep on learning, exploring, and improving the world with better data analytics. To enjoy the life and pursue my goals with confidence, hardworking, an optimistic attitude and good health by living my values. To maintain fun and physical fitness in my daily life. To cherish above all else family and friends by spending quality time with them.
1	HECO571 online	Reflection	My mission statement is promoting efficiency in healthcare by creating sustainable values and improving the quality of care.
2	HECO571 online	Solidarity and kinship	My personal statement is to support those with behavioral/mental health diagnoses through policy, economic development and research to determine appropriate levels of need and support.

Student	Course	Initial post: Value and experience	Response Post: Personal mission statement, as written by each student
3	HECO571 online	Cura personalis	To advance the quality of healthcare while lowering cost through appropriate analysis, policy, and research to be beneficial for all stakeholders.
4	HECO571 online	Cura personalis	To improve the health and well-being of patients by integrating research with patient-centered care that views and values the patient as a whole, rather than just treating a disease.
5	HECO571 online	Service rooted in justice and love	Improve health outcomes (the quantity and quality of life) and access, while reducing costs in communities like the one I grew up in.
6	HECO571 online	Solidarity and kinship	To be an advocate for patients worldwide by ultimately generating evidence that demonstrate how medical technologies provide sustainable, long term benefits for all stakeholders involved (patients, payers, manufacturers, society).
7	HECO571 online	Refection	To advance public health performance through the dissemination of real-world analytics and cost-effectiveness data for innovative and emerging health care technologies and strategies.
8	HECO571 online	No submission	No submission

Figure: Results of Discussion Assignment: Integrating HECOR, Population Health and Bioethics with Jesuit Values. Which value speaks to you?

Conclusions:

Online students ($n=8$) and face-to-face students ($n=5$) had similar patterns of responses, and are, therefore, comparable groups.

The majority of students' mission statements focused on others, suggesting that the ethics modules helped graduate students understand the importance of Jesuit and Ignatian values in their education. However, one online student did not submit the assignment, and one face-to-face student wrote a personal mission statement that focused primarily on personal achievement.

Interestingly, students chose all of the Jesuit values, nearly equally. Reflection and cura personalis were chosen most frequently. Magis was chosen only once, and by a student who was uncertain.

Although the sample size was small, these qualitative data provide rich information about how incorporating the ethics modules helped graduate students better integrate Jesuit values into their education.

When possible, ethics modules will be incorporated earlier in course structure to support discussion of Ignatian values and create opportunities for intrinsic motivation.

Next Steps:

- Create Modules for MS-HECOR courses
 - HECO 567 Applied Epidemiology: Integrating Jesuit Values in Epidemiology (April 2018)
 - DONE: See Addendum 1
 - Create Module for HECO 631 Global Health Systems: Integrating Jesuit Values in Global Health Systems (2018 Summer)
 - DONE: See Addendum 2
 - Create HECO585, a 3 credit hour course, for 2019 Spring
Merge: HECO 583 Ethical Health Informatics
HECO 584 Ethical Health Research
- Share modules, videos and materials with other faculty: All original materials are available for use, with attribution to Eileen Steinle Alexander PhD, MS, BSN, RN, Health Services Administration, Xavier University, Cincinnati, Ohio, U.S.A., 2018.
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- MS in Health Economics and Clinical Outcomes Research, Peter Mallow, PhD, Director, and Kristin Dale, BA, Administrative Assistant

References and Resources:

1. Lighting the Way: Incorporating Jesuit Values as a Graduate Student
 - a. <https://www.xavier.edu/jesuitresource/ignatian-resources/lighting-the-way>
 - b. <https://www.xavier.eduhttps://www.xavier.edu/mission-identity/xaviers-mission/indexOrientation-for-Graduate-Students.cf>
2. The Gifts of Our Ignatian Heritage
 - a. <https://www.xavier.eduhttps://www.xavier.edu/mission-identity/xaviers-mission/indexignatian-heritage-and-vision.cfm>
 - b. [XAVIER'S VALUES WHEEL
https://www.xavier.eduhttps://www.xavier.edu/mission-identity/xaviers-mission/indexdocuments/A-DGIIconceptualvaluemodelrevised4.pdf](https://www.xavier.eduhttps://www.xavier.edu/mission-identity/xaviers-mission/indexdocuments/A-DGIIconceptualvaluemodelrevised4.pdf)
3. Motivation
 - a. https://en.wikipedia.org/wiki/Candle_problem
 - b. <http://bora.uib.no/bitstream/handle/1956/6340/100116498.pdf;sequence=1>
 - c. https://www.ted.com/talks/dan_pink_the_puzzle_of_motivation/transcript?language=en
4. Interleaving
 - a. <https://www.scientificamerican.com/article/the-interleaving-effect-mixing-it-up-boosts-learning/>
 - b. <https://journals.sagepub.com/doi/pdf/10.1111/j.1467-9280.2008.02127.x>
5. Alexander E S, Donauer SA, Ndum EE, Farrell MC, Linenkugel NL. Innovative Professional Network Echo Method Improves Recruitment of Diverse and Multicultural Students to Health Administration, J Health Administration Education, J Health Admin Ed. 2017; 34 (3): 437-449.
6. Gordis, L. Epidemiology (5th ed). Philadelphia: Elsevier, 2014 .
7. Harman LB, Cornelius F. Ethical Health Informatics. Jones and Bartlett Publishers; 2015.
8. **Custom textbook by Jones and Bartlett**, ISBN 978-1-284-01115-9
9. AUPHA Ethics Forum
<https://network.aupha.org/amslogin?ReturnUrl=https%3a%2f%2fnetwork.aupha.org%2fcommunities%2fcommunity-home%2flibrarydocuments%3fcommunitykey=a443dafd-bc78-4723-9f64-61c0760c06d5andtab=librarydocuments>

10) Examples of professional Codes of Ethics

- a. American Nurses' Association
 - i. <http://www.vcuhealth.org/?id=1220&sid=13> (Links to an external site.)Links to an external site.
 - ii. <http://nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses/Code-of-Ethics-For-Nurses.html> (Links to an external site.)Links to an external site.
- b. AMA Code and Hippocratic Oath
 - i. <https://www.ama-assn.org/delivering-care/ama-code-medical-ethics> (Links to an external site.)Links to an external site.
 - ii. https://en.wikipedia.org/wiki/Hippocratic_Oath (Links to an external site.)Links to an external site.
- c. AHIMA <https://bok.ahima.org/doc?oid=105098-.YvVDk-zMJQI-WTmtQOvyuUk> (Links to an external site.)Links to an external site.
- d. ISPOR <https://www.ispor.org/workpaper/CodeOfEthics.asp> (Links to an external site.)Links to an external site.
- e. ASBH
 - i. <http://asbh.org/uploads/publications/ASBH%20Code%20of%20Ethics.pdf> (Links to an external site.)Links to an external site.
 - ii. <http://www.bigdatadialog.com/> (Links to an external site.)Links to an external site.

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