



# Modern Medicine through History in Greece

## Course Details

**Course Designator & Number: AHS 3005**

**Number of Credits: 3**

**Language of Instruction: xxx**

**Contact Hours: xx**

**Instructor: Karin Hamilton & Tricia Todd**

## Course Description

Greece is known for its rich history, beautiful landscapes, ancient civilization, and cultural contributions to the world. It is often referred to as the birthplace of western civilization and holds a prominent place in history due to its influence on philosophy, democracy, art, architecture, medicine and more. The country has a diverse geography, featuring a mainland with mountainous regions including the famous Mount Olympus, along with numerous islands scattered in the surrounding seas.

Greece has a long history that dates back thousands of years. It was home to one of the most advanced ancient civilizations, whose achievements in fields like mathematics, science, literature, and philosophy continue to shape modern society. The legacy of Ancient Greece includes legendary figures like Socrates, Plato, and Aristotle, who laid the foundations of Western philosophy. The Olympic Games, originating in Olympia, Greece, were another significant contribution to global culture from ancient times.

Ancient Greece made significant contributions to the field of medicine, laying the foundation for modern medical practices and theories. Named after the Greek physician Hippocrates (c. 460 – c. 370 BC), the Hippocratic Corpus is a collection of medical texts that laid the groundwork for Western medical ethics and practice. The Hippocratic Oath, which is still taken by physicians today, emphasizes the principles of medical ethics, including patient confidentiality and the commitment to do no harm. Greek physicians, including Hippocrates, emphasized the importance of empirical observation and clinical experience in diagnosing and treating illnesses. They rejected supernatural explanations for diseases and instead focused on understanding the natural causes of illness. Greek physicians made important contributions to

the study of anatomy and physiology. The physician Herophilus (c. 335 – c. 280 BC) is often credited with being one of the first anatomists, performing dissections on human cadavers to study the structure and function of the human body. The Greek physician Hippocrates and his followers developed the theory of the four humors—blood, phlegm, yellow bile, and black bile—to explain the balance of bodily fluids and the causes of disease. This theory remained influential in Western medicine for centuries. Galen (c. 129 – c. 200 AD), a Greek physician who worked in the Roman Empire, made significant contributions to anatomy, physiology, pharmacology, and medical theory. His writings became standard medical texts in Europe for over a thousand years, influencing medical practice and education during the Middle Ages and Renaissance. Greek physicians, including Hippocrates, practiced various surgical techniques, such as wound suturing and the removal of tumors and cysts. While ancient surgical practices were often crude compared to modern standards, Greek physicians developed methods to minimize pain and reduce the risk of infection. Overall, the contributions of ancient Greece to medicine laid the groundwork for many of the principles and practices that form the basis of modern medicine. Their emphasis on empirical observation, anatomical study, and medical ethics continues to influence medical education and practice today.

In addition to its historical significance, Greece boasts a rich cultural heritage evident in its traditional music, dance, art, and cuisine. The Mediterranean diet, known for its emphasis on olive oil, fresh fruits, vegetables, and seafood, has its roots deeply embedded in Greek culinary traditions. Modern-day Greece is a member of the European Union and is renowned for its tourism industry. While the country has faced economic challenges in recent years, Greece continues to preserve its cultural identity, welcoming visitors with hospitality and embracing a blend of ancient traditions and contemporary influences.

Overall, Greece's healthcare system is a mix of public and private services, with the public system aiming to provide essential healthcare coverage to its citizens and legal residents while the private sector offers more extensive and faster access to healthcare for those who can afford it. Like many other countries, Greece's healthcare system faced significant challenges during the COVID-19 pandemic, including a strain on resources, hospital capacity, and healthcare workers. The Greek healthcare system has faced challenges in recent years due to economic difficulties. Austerity measures have impacted healthcare funding and resources, leading to shortages in supplies and staffing issues in some areas.

Greece, like many other countries worldwide, aligns its policies and initiatives with the United Nations Sustainable Development Goals (SDGs). These goals, established in 2015, aim to address global challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice. The country is committed to providing inclusive and quality education for all (SDG 4). Steps have been taken to improve access to education, enhance educational infrastructure, and promote lifelong learning opportunities. Greece has been working to ensure access to affordable and quality healthcare services (SDG 3). Efforts include strengthening the healthcare system, improving health infrastructure, and promoting universal health coverage. Greece is focused on preserving its natural resources, promoting sustainable tourism, and addressing climate change (SDGs 13 and 15). Initiatives have been taken to protect biodiversity, reduce greenhouse gas emissions, and promote renewable energy sources. Greece aims to create sustainable and resilient cities and communities (SDG 11). Initiatives focus on improving urban infrastructure, enhancing public spaces, and promoting sustainable development in urban areas. Greece, being a country with significant coastal areas, emphasizes

marine conservation and sustainable use of marine resources (SDG 14). Efforts have been made to protect marine ecosystems, combat marine pollution, and promote sustainable fisheries.

### **Fulfillment of Liberal Education Core**

Liberal education is an approach to learning that helps students gain a broad understanding of systems and allows them to deal with a complex world in constant change. Health and disease fit into liberal education when explored through the lens of culture and society. While many view the health system and medical practices as a central component of health, the social determinants of health (SDOH) have a far greater impact on the health of societies. The SDGs are a global effort to sustainably address social determinants of health. This course has been designed to help students understand the complex social and cultural factors that influence health. This is accomplished through readings, discussion, reflection, and a final project but more specifically through a guided cross-cultural experience in Greece that presents a clear and defined example of how culture shapes the environment of health and sustainability.

### **Fulfillment of Global Perspectives Theme**

Traveling to Greece and exploring the relationship between culture, history, and health through the SDGs will provide students with a framework to also explore sustainable approaches to health in many other countries including their own. Greece boasts a rich history spanning millennia, known as the cradle of Western civilization with its contributions to philosophy, art, and governance. Its ancient culture, embodied in mythology, literature, and architecture like the Parthenon, continues to influence global thought and aesthetics. In modern times, Greece faces health challenges typical of developed nations, balancing traditional Mediterranean diets with contemporary public health concerns. Students will take the Intercultural Development Inventory (pre- and post-) and use the ODIE (observe, describe, interpret, evaluate) approach to discuss and reflect upon cultural differences seen and experienced in Greece. Culture is deeply embedded in history, and students will explore how historical decisions shape the culture of today, with a special focus on the culture that influences decisions that influence health and systems of health.

Understanding the role of health systems and health professionals in ensuring a healthy community, country, and world is part of being a responsible health professional and a global citizen. Healthcare in Greece is primarily provided through a national healthcare system, funded by contributions from employers and employees. The system offers universal coverage, ensuring access to essential medical services for all residents. Greece faces challenges such as an aging population and strains on public finances, impacting healthcare delivery and infrastructure. Efforts are ongoing to improve efficiency and sustainability within the healthcare system, aiming to meet the evolving needs of its population. Students will learn about Greece's policies and approaches to health and healthcare while comparing and contrasting those to the USA.

The global SDGs provide another framework with which to assess progress in improving global health and to compare challenges and initiatives across various countries. The SDGs represent an international effort to create a sense of shared responsibility for the health of the world. Students will better understand how that sense of shared responsibility is working in Greece as compared to other parts of the world, including the US. This course will provide the

students with the experience of seeing how Greece approaches the SDGs and how that ultimately affects the health of Greek citizens.

## Course Objectives

Students who complete this course will be able to:

- Articulate the global Sustainable Development Goals framework, and Greece's plans and approaches to meet those goals by 2030. Compare and contrast Greece's progress with the international community progress.
- Using an equity, social justice and cultural lens, compare and contrast healthcare in Greece with other healthcare systems in the world, including the US and Minnesota
- Describe the ethical challenges and cultural influences on systems and approaches that influence health in Greece, as well as in the US and Minnesota.

This course will help students meet many of the Student Learning Outcomes. Students who successfully complete this course:

- Can identify, define, and solve problems.
- Can locate and critically evaluate information (in another culture).
- Understand diverse philosophies and cultures within and across societies.
- Can communicate effectively.
- Understand the role of creativity, innovation, discovery, and expression across disciplines.
- Have acquired skills for effective citizenship and life-long learning.

## Methodology

### Activities and Assignments

#### Class at UMN

- Orientation
- Ice breakers, team building
- Introduction to SDGs, SDOH, IDI, and ODIE
- Assignment: Pre-Intercultural Development Inventory (IDI)
- Assignments: Reflections

- Assignments: Readings with discussion

### **While abroad**

- Assignments: Journal Reflections on a range of topics that reflect each of the course learning objectives and the days activities (e.g. field trips)
- Preparing SDG project
- Assignments: Daily participation

### **Conclusion**

- Final SDG Project
- Assignment: Post-Intercultural Development Inventory
- Assignment: Final reflection

Each assignment will describe the expected outcomes and have a grading rubric. The ability to participate, engage, reflect and debrief are essential to being successful in this course. Students will be encouraged to explore their assumptions and expectations during this course.

Participation: While in Greece, students will be required to be active participants in the in-person debrief and class discussions, and to be engaged on all field-excursions. Debrief discussion topics will involve daily experiences with comparisons of those in Greece to those in MN and the US. Debriefs will also include discussions on any ethical challenges experienced or raised during daily experiences. Class discussion topics will include preparation for excursions, SDGs, historical context, and comparisons between Greece, the US, and Minnesota.

Reflections: At UMN, students will reflect on the IDI and ODIE, the SDGs relative to MN/USA, and the SDOH in their lives. In country, students will complete reflections based on what they have experienced in Greece and how that relates to intercultural development, the SDGs, and health.

Final Project: Throughout the time in Greece, students will use their experiences (lectures, excursions, discussions, readings, etc.) to explore a SDG and ultimately the impact on health. Students will also provide a Greece-USA/MN comparison. On the final day of the course, students will present their final SDG project.

## **Required Reading / Materials**

(See Canvas for most up to date assignments)

Emmanouil, Pikoulis; Pavlos, Msaouel; Avgerinos, Efthimios D; Sofia, Anagnostopoulou; Christos, Tsigris. Evolution of medical education in ancient Greece. Chinese Medical Journal 121(21):p 2202-2206, November 2008.

What is ancient Greek medicine? <https://www.medicalnewstoday.com/articles/323596>

Yannis Tountas, The historical origins of the basic concepts of health promotion and education: the role of ancient Greek philosophy and medicine, *Health Promotion International*, Volume 24, Issue 2, June 2009, Pages 185–192, <https://doi.org/10.1093/heapro/dap006>

Giannopoulou I, Tsobanoglou GO. COVID-19 pandemic: challenges and opportunities for the Greek health care system. *Irish Journal of Psychological Medicine*. 2020;37(3):226-230. doi:10.1017/ipm.2020.35

Elias Kondilis, Stathis Giannakopoulos, Magda Gavana, Ioanna Ierodiakonou, Howard Waitzkin, and Alexis Benos, 2013: Economic Crisis, Restrictive Policies, and the Population's Health and Health Care: The Greek Case. *American Journal of Public Health* 103, 973\_979, <https://doi.org/10.2105/AJPH.2012.301126>

Amalia A. Ifanti, Andreas A. Argyriou, Foteini H. Kalofonou, Haralabos P. Kalofonos, Financial crisis and austerity measures in Greece: Their impact on health promotion policies and public health care, *Health Policy*, Volume 113, Issues 1–2, 2013, Pages 8-12, ISSN 0168-8510

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# Grading

## Grading Rubric

| Letter Grade | Score or Percentage | Description  |
|--------------|---------------------|--|
| A            | 93–100              | Achievement that is outstanding relative to the level necessary to meet course requirements.   |
| A-           | 90–92               | Achievement that is significantly above the level necessary to meet course requirements.   |
| B+           | 87–89               |  |
| B            | 83–86               |  |
| B-           | 80–82               | Achievement that meets the course requirements in every respect.   |
| C+           | 77–79               |  |
| C            | 73–76               |  |
| C-           | 70–72               | Achievement that is worthy of credit even though it fails to fully meet the course requirements.   |
| D+           | 67–69               |  |
| D            | 60–66               |  |
| F            | 0–59                | Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I. |

# Course Content

(Tentative—see Canvas for most up-to-date version)

## Unit 1

### Introduction to course, icebreakers

- IDI
- Readings

## Unit 2

### Introduction SDGs, final project, SDOH

- Reflection
- Readings

## Unit 3

### Intercultural Development Inventory (IDI), Observe Describe Interpret Evaluate (ODIE)

- Reflection
- Team activity

## Unit 4

### LAC & Greece orientation

- Reflection
- Team activity

## Unit 5

### SDG 3, student location assignments

- Reflection
- Readings



## Unit 6

### History of Medicine

- Reflection
- Readings

## Unit 7

### Team project work time; Preparation for travel, logistics, safety

- Reflection
- Readings

## Topic/Activity

### Day 1

Welcome, orientation, Greek language lesson

### Day 2

Athens cultural day

### Day 3

Parthenon and Acropolis

### Day 4

Tritsis Conservation Park or Stavros Niarchos Foundation

### Day 5

PHO for vulnerable populations

## **Day 6**

Parnitha Mountain, sanatorium, Bafi retreat

## **Day 7**

Medical tourism in Athens

## **Day 8**

Invisible Routes walking tour

## **Day 9**

Free day

## **Day 10**

Cape Sounion, Temple of Poseidon, beach

## **Day 11**

Health insurance and pharmaceutical industry

## **Day 12**

Aegina Island, Aphaia Temple, beach

## **Day 13**

Hospital visit, Olympic museum

## **Day 14**

Lycabettus Hill, chapel of St. George

## **Day 15**

Teamwork and final presentations

## **Day 16**

Return home

# Policies

## Attendance Policy

Students are expected to be on time and attend all classes while abroad. Many instructors assess both attendance and participation when assigning a final course grade. Attendance alone does not guarantee a positive participation grade; the student should be prepared for class and engage in class discussion. See the on-site syllabus for specific class requirements.

## University of Minnesota Policies & Procedures

Academic integrity is essential to a positive teaching and learning environment. All students enrolled in University courses are expected to complete coursework responsibilities with fairness and honesty. Failure to do so by seeking unfair advantage over others or misrepresenting someone else's work as your own can result in disciplinary action. The University Student Conduct Code defines scholastic dishonesty as follows:

### Scholastic Dishonesty

Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis.

Within this course, a student responsible for scholastic dishonesty can be assigned a penalty up to and including an "F" or "N" for the course. If you have any questions regarding the expectations for a specific assignment or exam, ask.

### Student Conduct

The University of Minnesota has specific policies concerning student conduct. This information can be found [on the Learning Abroad Center website](#).