

The Ancient Roots of Modern Medicine:

Development of an Interdisciplinary, Undergraduate Pre-Health Course



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INTRODUCTION

- Recent years have seen a vehement push for the integration of humanities in medical education to develop professionalism, empathy, innovation, communication, and critical reasoning skills.
- Ancient Greek and Latin language, literature, and medical practice, which lie at the root of modern Western medical terminology and practice, offer an opportune avenue to the study of medical humanities.
- While many undergraduate programs offer courses in medical etymology, few courses in history, culture, and ethics of ancient Greco-Roman medicine exist; those that do are often targeted to students in the field of Classics.

Purpose

To create a 36-100 student, lower-division, 3-credit course on the ancient roots of modern medicine, including in etymological, historical, cultural, and ethical terms, and targeted to undergraduate, pre-health students at the University of Colorado Boulder.

METHODOLOGY

Materials Selection

- Textbook: 12 medical etymology textbooks reviewed, rated on a 4-point utility scale. *The* Hippocrates Code¹(HC) chosen as main textbook and coded by themes derived from content presented.
- Supplemental Materials: 13 primary sources (ancient texts) and 49 secondary sources (modern scholarship) reviewed and coded by themes

Syllabus Creation

- Formulated course objectives
- Course structures as a 15-week, Monday-Wednesday-Friday, 50-minute class schedule
- Mon/Wed dedicated to etymology content
- Fri dedicated to discussion of culture, ethics, and history of ancient medicine and the relation to modern Western medicine.

Fig 1. Tombstone of Athenian

physician examining child patient

circa 200 BCE, the British Museum

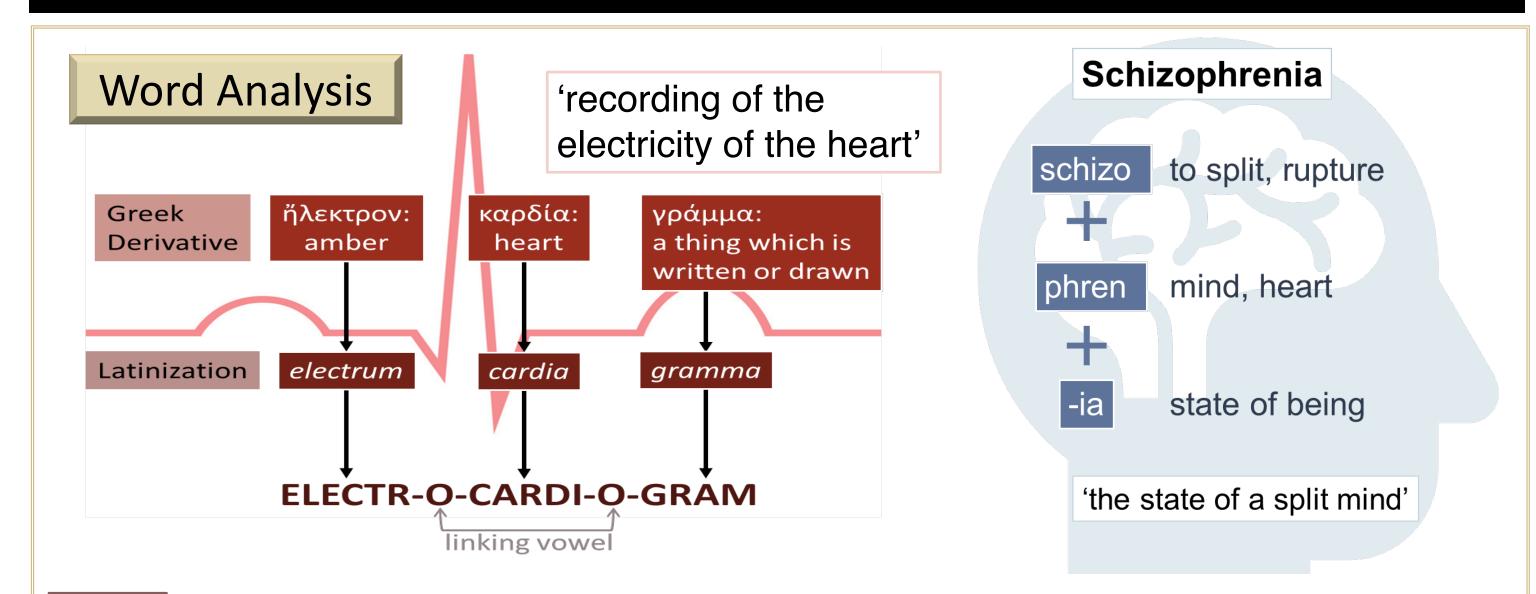
- Organized readings into thematic units and selected supplemental readings to fit these units
- Composed lesson plans, discussion questions, and learning objectives
- Designed weekly quizzes, two midterm exams, and final exam

Themes	Discussion Topics
Conceiving Medicine	Narrative and Medicine
	Myth in Medicine
	The Birth of Science in Ancient Greece
The Body & the Ethics of	Moral Dilemmas in the Acquisition of Knowledge
"Knowing"	Medicine as Arbiter of the Female Form
The Practice of Medicine	Conceptualizing Health and Disease
	Ancient Diseases and Remedies
	Parabolizing Plague Then and Now
	'Other' Medicine and the 'Othering' of Medicines
Professional Identity & The Physician	What Constitutes a Doctor?
	Codes of Ethics
	What Constitutes a Good Doctor?

COURSE OBJECTIVES

- To understand the meaning and use of the Greek and Latin roots in modern medical terminology; instead of needing to memorize, you will learn to decipher initially challenging medical and biological terminology by recognizing and parsing their root meanings.
- To gain an appreciation of ancient Roman and Greek medical history and culture in their relation to the modern practice of Western medicine and the **sciences**.
- To become familiar with common ancient bioethical principles that govern the ancient practice of medicine and the sciences; to learn to appreciate how these principles inform and influence modern medicine and the sciences.
- To draw parallels between **skills** embodied in and fostered by the humanities and their direct application to the daily practice of medicine and the sciences.

SAMPLE ETYMOLOGY LESSONS



Tibia

Fig 2. Boy playing flute In Latin, *tibia* means 'flute' or 'shinbone.' Early flutes were made of bone. The flute was a double-reeded instrument, just as the

shin is a double bone.

Anatomical Etymologies

The anatomic word for collarbone derives from the Latin *clavicula*, meaning 'little key.'

> clavis, is (f): key -iculus,-a, -um: diminutive suffix

The Greek word κλείς (kleis), as in sternocleidomastoid, means both 'key' and 'collarbone'. Clavicle

σῦριγξ (syrinx) in

Syringe, Syrinx

Greek is 'Panpipe,' a reed instrument mythologically associated with the Greek god Pan.



SAMPLE DISCUSSION QUESTIONS

Empathy, Reflection, Profession, and Trust"⁴

Fig 4. Mosaic of the arrival of Asclepius at Cos, the birthplace of Hippocrates. Asclepius in the center, Hippocrates on the left

Week 1: Narrative and Medicine

Celsus. De Medicina²

Heinrich von Staden. "Celsus as Historian?"3 Rita Charon. "Narrative Medicine: A Model for

What is narrative medicine? According to Charon how are the skills used to analyze, discern, and understand narratives applicable to the field of medicine?

If Celsus, as von Staden argues, does not present himself as a historian, then what purpose does recounting the 'history' of medicine serve? In other words, why might Celsus include this account in his medical treatise?

Week 8: Ancient Diseases and Remedies

Jouanna, Jacques. "The Physician and the Disease."5

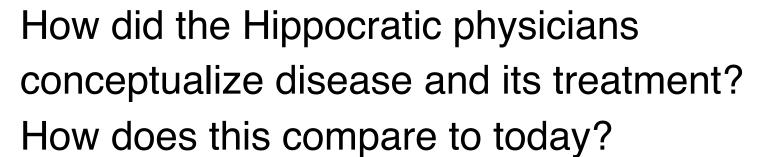




Fig 5. Ancient Greek medical instruments, Archaeological Museum of Epidaurus

What were the classifications of remedies or treatments in the Hippocratic traditions? How do these compare to modern classifications? Which treatments seem reasonable and which stand out as peculiar or even dangerous?

Fig 6. Portrait of Galen, ancient Greek doctor and anatomist.

Week 14: What Constitutes a Good Doctor

Galen. "The Best Doctor Is Also a Philosopher" 6

Kathryn Montgomery. "Phronesis and the Misdescription of Medicine: Against the Medical School Commencement Speech."7

- What three reasons does Galen provide that a good doctor must also be a philosopher? How does he justify this argument?
- What is science? Art/techne? Phronesis? How do these concepts differ and how do they relate to each other? Under which of these categories does the field of medicine fit?

FURTHER INFORMATION

- Approved as a Classics major/minor course under "Literature, Culture and Thought"
- Approved as a "Arts and Humanities" General Education Distribution Requirement
- Anticipate offering course starting AY2022-23

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