

LATIN AND GREEK IN SCIENTIFIC TERMINOLOGY

A study of scientific vocabulary through classical roots

CLASSES	T Period (3:00PM – 3:50PM) R Period (3:00PM – 4:55PM)
LOCATION	FLG 230
INSTRUCTOR	Sara Agnelli, saraclassics@ufl.edu
OFFICE HOURS	<i>tba</i>

COURSE DESCRIPTION

Ninety to ninety-five percent of technical terms in the sciences, and the life sciences in particular, comes from Greek and Latin sources. Therefore, the extent of the influence of classical languages might present a sizeable challenge to the beginning student. The complexity of these terms is owed in part to the fact that many were formed from Greek and Latin words, in order to allow for easier communication within a multilingual scientific community at a time when most its members learned these languages as a core part of their education. Although most students of the sciences are no longer expected to learn classical languages, a basic exposure to the Latin and Greek elements of scientific language can make it much easier to understand the meaning of technical terms and to expand one's scientific vocabulary.

This course is designed to give students in any field of specialization a better knowledge of the scientific terminology through the study of Latin and Greek roots. Designed for anyone with an interest in the origin of words, this course introduces the student to basic scientific terminology through the Greek and Latin sources of these words.

This course will take a broad view of the subject in question. Not only we will cover the vocabulary of the life sciences (e.g., human and veterinary medicine, botany, and zoology), but we will also focus on the key terms of different fields of knowledge (e.g., law, agriculture, and architecture). Moreover, by studying the origin of the words and the way in which their meanings have changed through history, we will adopt a cultural-historical perspective. At the end of the course, students will become acquainted with the ancient Greek and Roman roots of scientific inquiry: what were the ancients' ideas and understanding of the workings of the human body and mind? How did Hippocrates, Plato, Aristotle, and Galen contribute to the Western medical/scientific tradition? What similarities and discrepancies existed between human and veterinary medicine? What is literal, what is metaphorical, and what is analogical in the descriptions of the human body within the ancient medical texts?

Learning goals

- Acquire a working vocabulary of the fundamental Greek and Latin roots, prefixes, and suffixes key to understanding scientific terms.
- Gain the skills necessary to identify the Greek and Latin elements of scientific terminology and give their meaning.
- Understanding the historical processes leading to the development of current scientific terminology and how scientific knowledge is constructed.
- Understand ancient Greek and Roman scientific, medical and technical writing.

RESOURCES

All required readings are listed in the schedule below and available online; these supplement the lectures by providing historical background on the development of scientific terminology and some points of grammar. In addition, all the readings will be placed in canvas during the semester.

English and technical dictionaries:

Haubrich, W.S. (2003). *Medical Meanings: A Glossary of Word Origins*. 2nd ed. Philadelphia: American College of Physicians.

Senning, A., ed. (2007). *Elsevier's Dictionary of Chemoetymology: The Whies and Whences of Chemical Nomenclature and Terminology*. Amsterdam: Elsevier.

Simpson, J. A., and E.S.C. Weiner, eds. (1989). *The Oxford English Dictionary*. 2nd ed. 20 vols. Oxford: Clarendon Press. <http://www.oed.com/>.

Stegman, J. K., E. Branger, T. Piper, T. W. Filardo, J. H. Dirckx, R. Lukens, and W. R. Hensyl, eds. (2006). *Stedman's Medical Dictionary*. 28th ed. Philadelphia: Lippincott Williams & Wilkins.

Venes, D., ed. (2013). *Taber's Cyclopedic Medical Dictionary*. 22nd ed. Philadelphia: Davis.

Classical dictionaries:

[Logeion](#) and [Perseus](#).

Montanari, F., Goh, M., Schroeder, C. M., Nagy, G., Muellner, L. C., eds., (2015). *The Brill dictionary of ancient Greek*. Washington, D.C.: Center for Hellenic studies.

Glare, P. G. W. ed. (2010). *Oxford Latin dictionary*. Oxford: Clarendon Press.

Short List of secondary sources:

Adams, J. N. (1995). *Pelagonius and Latin veterinary terminology in the Roman Empire*. Leiden: E.J. Brill.

Asper, Asper, M. (2013). *Writing science: Medical and mathematical authorship in ancient Greece*.

- Brown, R. W. (1984). *Composition of scientific words*. Washington, D.C.: Smithsonian Institution Press.
- Dirckx, J. H. 2006a. 'Greek and Latin in Medical Terminology'. In *Stedman's Medical Dictionary*, ed. by J. K. Stegman, E. Branger, T. Piper, T. W. Filardo, J. H. Dirckx, R. Lukens, and W. R. Hensyl, 28th ed., appendix 9. Philadelphia: Lippincott Williams & Wilkins.
- Scarborough, J. (1992). *Medical terminologies: Classical origins*. Oklahoma series in classical culture, 13. Norman: University of Oklahoma press.,
- Wee, J. Z. (2017). *The comparable body: Analogy and metaphor in ancient Mesopotamian, Egyptian, and Greco-Roman medicine*. Leiden; Boston: Brill

COURSE REQUIREMENTS

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

1. Class begins promptly. A student is counted as being tardy if he/she comes in after class has started.
2. A student is counted as being absent if he/she fails to attend the class.
3. The student's final grade will be deducted by 1% from his/her final grade for each unexcused absence after the second unexcused absence of the semester.

Should you miss a class for any reason, you are responsible for informing yourself as to what was covered in class. Except in the case of certified illness or other UF accepted excuse, there will be no make-up option for missed exams/assignments. Where possible, makes-ups should be arranged prior to absence. Alternatively, students should contact me on their return to classes.

Homework Preparation: you should complete the reading or viewing by the assigned class period and be ready to discuss it.

The use of cell phones is prohibited. Phones must be silenced and kept in your backpack. Laptops and other electronic devices are to be used for notetaking purposes only. Failure to comply with these requirements will result in a greatly reduced participation grade.

Assessment is based on a series of tests, in which you will demonstrate your knowledge of Greek and Latin forms as applied to scientific terminology, and written assignments, in which you will demonstrate your ability to engage with scientific literature.

Weekly Vocabulary Assignments

During each lecture, we will dissect the terminology of a recent peer-reviewed scientific article. Before class, look through the week's article (posted on canvas; note that these are separate from the course

readings) and make a list of ten words that you find unusual and appear to you to be based on Greek or Latin. Break down one of these words into its constituent roots based on the etymologies provided in dictionaries. This must be submitted by 11:59 pm the night before each class; late assignments will not be accepted, but one will be subtracted from the final evaluation. We will analyze these words during class the following day. Assessment is based on both the completion of the assignment and participation in class.

In-class Tests

There will be 3 non-cumulative tests during the semester. These will consist of multiple choice and/or short paragraph answers. Further details will be provided in class closer to the exam dates.

Vocabulary Analysis Paper

This assignment builds on your weekly experience examining vocabulary from journals. Select twenty terms total from any two recent articles in peer-reviewed scientific journals, and analyze their etymology and meaning. You should use at least three different dictionaries (or other scholarly sources) to support your findings. Here some ideas:

Cascarini, L. (2007). 'Mandibular Etymologies'. *British Dental Journal* 203 (4): 209–10.

Kachlík, D., V. Báča, I. Bozděchová, P. Čech, and V. Musil. (2008). 'Anatomical Terminology and Nomenclature: Past, Present and Highlights'. *Surgical and Radiologic Anatomy* 30 (6): 459–66.

Józwiak, P., Rewicz, T., & Pabis, K. (2015). 'Taxonomic etymology - In search of inspiration.' *Zookeys* (513): 143–160.

Break-down of final grade

Attendance, Class Participation & Weekly Vocabulary Assignments (due the day before each class):

25%

Test I: 15%

Test II: 15%

Test III: 15%

Vocabulary Analysis Paper: 30%

Grading Scale

A. 100–93 (4.0)

A- 92–90 (3.67)

B+ 89–87 (3.33)

B. 86–83 (3.0)

B- 82–80 (2.67)

C+ 79–77 (2.33)

C. 76–73 (2.0)

C- 72–70 (1.67)

D+ 69–67 (1.33)

D. 66–63 (1.0)

D- 62–60 (0.67)

E 59– (0)

Note: A grade of C- is not a qualifying grade for major, minor, Gen Ed, or College Basic distribution

credit. For further information on UF's Grading Policy, see:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>
<https://student.ufl.edu/minusgrades.html>

CLASSROOM ACCOMMODATION

Students with disabilities requesting accommodations must first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter to present to the instructor. Students with disabilities should follow this procedure as early as possible in the semester.

<https://drc.dso.ufl.edu/> (352) 392 8565

EVALUATE YOUR INSTRUCTOR

Students should provide feedback on the quality of instruction in this course by completing online evaluations at evaluations.ufl.edu. The University will announce specific times at the end of the semester for evaluation. Students may view summary results of these assessments at:

<https://evaluations.ufl.edu/results/>

HONOR CODE

Familiarize yourself with the University of Florida Student Honor Code and obey it always. You can find the Student Honor Code online at:

dso.ufl.edu/sccr/process/student-conduct-honor-code

COUNSELING AND WELLNESS

Students who face difficulties completing the course or need counseling or urgent help should call the Counseling and Wellness Center. Do not wait until the end of the semester for help.

<https://counseling.ufl.edu/>

IMPORTANT DATES

October 9: Test I
Test II
December 4 (on-line): Test III
December 12, 11:59pm: Vocabulary Analysis Paper

NO CLASSES

September 4
November 22 (Thanksgiving)

SCHEDULE

	INTRODUCTION	
1.	<ul style="list-style-type: none"> ▪ ARS/SCIENTIA 	08/23
	KEY TERMS FROM GREEK AND THEIR SEMANTIC DOMAIN	PART I
2.	<ul style="list-style-type: none"> ▪ φύσις the semantic field of nature 	08/28
3.	<ul style="list-style-type: none"> ▪ ἄνθρωπος ▪ ζῷον man and animal terminology 	08/30
4.	<ul style="list-style-type: none"> ▪ σῶμα ▪ ψυχή ▪ νόσος body, soul and mind 	09/06
5.	<ul style="list-style-type: none"> ▪ Some Greek philosophical terms: αἰτία, ἀρχή, αἴσθησις, ἐπιστήμη, ἀληθῆ, δύναμις, ἐνεργεία, etc. 	09/11
6.	<ul style="list-style-type: none"> ▪ Test I ▪ Influence of mythology in naming the parts of the body 	09/13
	KEY TERMS FROM LATIN AND THEIR SEMANTIC DOMAIN	PART II
7.	<ul style="list-style-type: none"> ▪ <i>“Nulla poena sine lege”</i> Latin legal terms 	09/18
8.	<ul style="list-style-type: none"> ▪ <i>“Felix illud saeculum ante architectos fuit!”</i> (SEN. Ep. 90.9) glossary of architectural terms 	09/20
9.	<ul style="list-style-type: none"> ▪ <i>De agri cultura</i> farming 	09/25
10.	<ul style="list-style-type: none"> ▪ <i>Res militaris</i> military terminology 	09/27
11.	<ul style="list-style-type: none"> ▪ <i>actino-, bacillus/bacter, coccus, monas, trix/trichia...</i> the most common words in bacteriological names 	10/02

12.	<ul style="list-style-type: none"> ▪ Test II ▪ The Linnaean System of Biological Nomenclature 	10/04
GREEK AND LATIN AUTHORS IN SCIENTIFIC TERMINOLOGY		PART III
13.	<ul style="list-style-type: none"> ▪ Galen and anatomical terminology 	10/09
14.	<ul style="list-style-type: none"> ▪ Galen – CONTINUATION (CONT.) 	10/11
15.	<ul style="list-style-type: none"> ▪ Galen – CONT. 	10/16
16.	<ul style="list-style-type: none"> ▪ Pliny and the language of mineralogy 	10/18
17.	<ul style="list-style-type: none"> ▪ Pliny – CONT. 	10/23
18.	<ul style="list-style-type: none"> ▪ Pliny – CONT. 	10/25
19.	<ul style="list-style-type: none"> ▪ Aristotle and his work on marine species traits 	10/30
20.	<ul style="list-style-type: none"> ▪ Aristotle – CONT. 	11/01
21.	<ul style="list-style-type: none"> ▪ Aristotle – CONT. 	11/06
22.	<ul style="list-style-type: none"> ▪ Pelagonius and Latin veterinary terminology 	11/08
23.	<ul style="list-style-type: none"> ▪ Pelagonius – CONT. 	11/13
24.	<ul style="list-style-type: none"> ▪ Pelagonius – CONT. 	11/15
25.	<ul style="list-style-type: none"> ▪ Dioscorides and botanical terminology 	11/20
26.	<ul style="list-style-type: none"> ▪ Dioscorides – CONT. 	11/27
27.	<ul style="list-style-type: none"> ▪ Dioscorides – CONT. 	11/29
28.	<ul style="list-style-type: none"> ▪ Conclusion ▪ Test III (online) 	12/04