Alongside the arts of language (grammar, rhetoric, and logic), medieval students would encounter the arts of number: arithmetic, the study of pure number; geometry, number in space; music, number in time; and astronomy, number in space and time (in Stratford Caldecott's formulation). In this course, we will be following this medieval curriculum insofar as we are able through some of its primary texts, many only recently translated, in order to come to a better appreciation of the way in which the study of these arts affected the development of the medieval European intellectual, scientific, and artistic tradition. This is a companion course to “The Arts of Language in the Middle Ages: The Trivium,” but the two courses may be taken in either order.
BOOKS AVAILABLE FOR PURCHASE AT THE SEMINAR CO-OP BOOKSTORE


* COURSE REQUIREMENTS

The primary texts that we are reading this quarter were all intended as handbooks for the practical study of the mathematical arts. Your assignment for the quarter is to write your own handbook for one of the arts we are studying, using only medieval techniques of instruction (10-12 pages for undergraduates; 15-18 pages for graduate students).

Your handbook may use diagrams, charts, and any other tools that you discover in our medieval sources, but no modern mathematical notations. You will also be expected to annotate your handbook with appropriate references, showing your authorities. You may also use your annotations (or glosses) to make comments for your readers. You may use the assigned primary texts and readings as sources, but you should also consult the bibliographies in the readings for further materials. Additional resources may be found through the International Medieval Bibliography (online via Regenstein Library).

To help you design your handbook, you will be presenting in three class meetings on the readings for the day. You should choose two of your days for presentation based on the art that you want to write your handbook on, but you may adjust before May 1 (if you find you want to change). Think of the presentations as opportunities to test how you would present aspects of your art, rather than simply reporting on the assigned readings.
READING AND DISCUSSION ASSIGNMENTS

March 29 The Quadivial Arts
Paul Abelson, *The Seven Liberal Arts: A Study in Medieval Culture* (New York: Teacher’s College, Columbia University, 1906; 1939), chapters VII-X, pp. 90-134

March 31 The Music of Numbers

April 5 Geometry

April 7 Arithmetic

April 12 Astronomy

April 14 Harmony

April 19 The Clock of Heaven
Bede, *On the Reckoning of Time*, trans. Faith Wallis, pp. 3-156, 239-49, and passim (the translation of the world chronicle; and Commentary)

April 21 Clocking the Stars

April 26 School Math I
C. Philipp E. Nothaft, “Medieval Europe’s Satanic Ciphers: On the Genesis of a Modern Myth,” ORCID

**April 28 The Hand of Music**
Claude V. Palisca, “Introduction,” in *Hucbald, Guido, and John*, pp. 49-56

**May 3 School Math II**
“A School Becomes a University: 1140-1480,” in *Sourcebook in the Mathematics of Medieval Europe*, ed. Katz et al., pp. 64-93
Lon R. Shelby, “Geometry,” in *Seven Liberal Arts*, ed. Wagner, pp. 196-217

**May 5 Playing the Hand**
Theodore C. Karp, “Music,” in *Seven Liberal Arts*, ed. Wagner, pp. 169-95

**May 10 The Mechanical Arts**

**May 12 Number in Architecture**
May 17 Dreaming the Cosmos
Claudia Kren, “Astronomy,” in Wagner, *Seven Liberal Arts*, pp. 218-47

May 19 Writing the Cosmos

May 24 Seeing the Light

May 26 Why study mathematics?

FINAL PROJECTS due MAY 27 for GRADUATING SENIORS; JUNE 3 for everyone else