

DEPARTMENT OF GREEK AND ROMAN STUDIES
COURSE OUTLINE
GREEK AND ROMAN STUDIES 321: ANCIENT TECHNOLOGY
WINTER 2010

Instructor: Dr John Humphrey
Office: SS 1210; email humphrey@ucalgary.ca
Office Hours: MW 10:00-11:30, or by appointment; email consultation any time
Web Page: Login through the Blackboard site using your **ucalgary** email username and password. Click on "GRST 321."

Class Time: MW 12:30-13:45
Classroom: EDC 280 (subject to change)

Text: J.W. Humphrey. *Ancient Technology*. Westport CT and London: Greenwood Press, 2006.

Assignments:

1. Six **discussion summaries** [24% in total]. Irregularly through the term, we will form small groups to discuss a problem or topic related to the preceding lectures and readings. After about 40 minutes, each group will submit (in point form) an outline of its collective response. This will be followed by another 30 minutes of open discussion.
2. **Midterm test** [15%]. This test will examine material from the first half of the course, with a series of short-answer questions based on slides.
3. An **essay** of about 2500 words [31%]. The topics for this assignment will be announced in class and posted on Blackboard by late January, together with the due date for each. I encourage you to select topics due just before or after the midterm break, for which I will be willing to grant short extensions; extensions will **not** be granted to topics due in late March and early April.
4. A 2-hour **final examination** scheduled by the Registrar [30%]. This will consist of two equal parts: the equivalent of the midterm test, examining material *only* from the second half of the course; and an interpretive essay, to be selected from a variety of topics that treat the course as a whole.

Notes:

1. I expect universal attendance at and participation in the group discussions, which are an essential element of the course. Several unauthorized absences could result in a failing grade.
2. I encourage you to maintain consultation with me throughout the term, to ask for help when you are floundering or confused, to discuss difficulties with the discussions, and to keep me aware of unexpected absences.
3. The withdrawal deadline for this course is Friday 16 April 2010. You can track your current standing in the course through Blackboard. The last day to withdraw from this course without a refund of fees is Friday 22 January 2010.
4. The Department of Greek and Roman Studies draws the attention of all students in its courses to the University regulations on plagiarism, cheating, and other academic misconduct, which can be found in the on-line version of the 2009-2010 University *Calendar* (www.ucalgary.ca/pubs/calendar/current/k.html).

Course Schedule

<u>DATE</u>	<u>TOPIC</u>	<u>REQUIRED READINGS</u> (including Documents)
Jan 11 Mo	Historical outline i: before the Greeks	<i>AncTech</i> pp 1-5
13 We	Historical outline ii: the Greeks and Romans	<i>AncTech</i> pp 5-11
18 Mo	Sources of information	<i>AncTech</i> pp 11-16, 135-144
20 We	Energy, machines, and Hero's inventions	<i>AncTech</i> pp 16-18, 117-128
25 Mo	Discussion 1: technical limitations that prevented an ancient industrial revolution	
27 We	Food: agriculture and food processing	<i>AncTech</i> pp 19-24
Feb 01 Mo	Food: preparation and diet	<i>AncTech</i> pp 24-28
23 We	Clothing: textiles	<i>AncTech</i> pp 29-34
08 Mo	Water: hydraulic engineering	<i>AncTech</i> pp 35-40
10 We	Water: building an urban water system	<i>AncTech</i> pp 40-51
15 Mo	<i>Midterm break: no classes</i>	
17 We	<i>Midterm break: no classes</i>	
22 Mo	Discussion 2: applying ancient hydraulic techniques in the modern world	
24 We	Shelter i: monumental structures	<i>AncTech</i> pp 53-61
Mar 01 Mo	Shelter ii: houses and apartments	<i>AncTech</i> pp 61-62
03 We	Midterm Test	
08 Mo	Security: fortifications, armies and navies	<i>AncTech</i> pp 62-66
10 We	Discussion 3: how built structures reflect social demands	
15 Mo	Transportation by sea	<i>AncTech</i> pp 67-72
17 We	Transportation by land	<i>AncTech</i> pp 72-75
22 Mo	Weights, measures, and coinage	<i>AncTech</i> pp 75-80
24 We	Discussion 4: globalization ancient and modern	
29 Mo	Writing: pictograms to the alphabet	<i>AncTech</i> pp 81-96
31 We	Timekeeping	<i>AncTech</i> pp 96-103
Apr 05 Mo	Discussion 5: the importance of communication	
07 We	Crafts: mining and metals	<i>AncTech</i> pp 105-112
12 Mo	Crafts: ceramics; a symposium	<i>AncTech</i> pp 112-115
14 We	Discussion 6: societies' attitude to technology	<i>AncTech</i> pp 128-133

General Bibliography

Some of the following works are housed in the Reserve Reading Room of the Library, where they are available for consultation and, infrequently, for short-term loan. Copies of the rest are available in the main stacks. For more specific books and articles, see the bibliographies following each chapter in the *Sourcebook*.

General Works

- C. Singer et al. *A History of Technology*, vols. 1 and 2.
T.K. Derry and T.I. Williams. *A Short History of Technology from the Earliest Times to A.D. 1900*.
H. Hodges. *Technology in the Ancient World*.
A.P. Usher. *A History of Mechanical Inventions*.
M. Daumas, ed. *A History of Technology and Invention*, vol. 1.
V.G. Childe. *What Happened in History*.
K.D. White. *Greek and Roman Technology*.
R.J. Forbes. *Studies in Ancient Technology*, 9 vols.
L. Sprague de Camp. *The Ancient Engineers*.

Ancient Written Sources

- J.W. Humphrey et al. *Greek and Roman Technology: A Sourcebook*.

Classical Antiquity

- E. Vermeule. *Greece in the Bronze Age*.
A. Burford. *Craftsmen in the Greek and Roman World*.
C. Mossé. *The Ancient World at Work*.

Specific Technologies

- K.D. White. *Roman Farming*.
J.F. Healy. *Mining and Metallurgy in the Greek and Roman World*.
A.T. Hodge. *Roman Aqueducts and Water Supply*.
L. Casson. *The Ancient Mariners*.
D. Diringer. *Writing*.
J.G. Landels. *Engineering in the Ancient World*.
D. Hill. *A History of Engineering in Classical and Medieval Times*.

Bibliography

- J.P. Oleson. *Bronze Age, Greek, and Roman Technology: A Selected, Annotated Bibliography*.