

University of Calgary
Faculty of Arts

Department of Greek and Roman Studies

Greek and Roman Studies 321
ANCIENT TECHNOLOGY

Course Outline

Winter 2014

Instructor: Dr John Humphrey

Office: SS 530; email humphrey@ucalgary.ca

Office Hours: MWF 13:30-14:50, or by appointment; email consultation any time

Class Time: MWF 12:00-12:50

Classroom: ENE 243

Text: J.W. Humphrey et al. *Greek and Roman Technology: A Sourcebook* (London: Routledge, 1998). Paper.

Essay/Exams: 1. A **term paper** of 2,000 words is worth 40% of the final grade. Topics are to be chosen in consultation with the instructor, and will be due on various dates in the second half of the term. I encourage those who have skills in programming, animation, drawing, and model-making to consider a practical project to replace the essay.

2. A **midterm test**, worth 20% of the final grade, will be based on the readings from the text and on the visual evidence presented in class, for the first half of the term.

3. A two-hour **final examination**, scheduled by the Registrar during the formal examination period in December (40% of the final grade), will consist of the equivalent of the midterm test, based on the material only from the second half of the course, together with an interpretive essay on a choice of general topics that draw on material from the whole course.

Notes: 1. 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 your essays, and to keep me aware of unexpected absences.

2. The withdrawal deadline for this course is Monday 14 April 2014. You can track your current standing in the course through Blackboard. The last day to withdraw from this course with a refund of fees is Friday 17 January 2014.

3. 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 2013-2014 University Calendar (www.ucalgary.ca/pubs/calendar/current/k.html).

Academic Accommodation

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with Student Accessibility Services, please contact their office at 403-220-8237. Students who have not registered with Student Accessibility Services are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than **fourteen (14) days** after the start of the course.

Blackboard Help

Go to <http://www.ucalgary.ca/computersupport/onlineservices/blackboard> for Student Help and FAQs about Blackboard. Troubleshooting tips and a tutorial are available at <http://elearn.ucalgary.ca/blackboard/students>. Instructions for using the Digital Drop Box are available here:
http://library.blackboard.com/docs/r6/6_1/student/bbbs_r6_1_student/digital_drop_box.htm.

Classics Student Society

Classics Student Society is the Greek and Roman Studies Student Club. For membership or more information please email: classsoc@ucalgary.ca or visit <http://grst.ucalgary.ca/undergraduate/classics-students-society>.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The Faculty of Arts Program Information Centre (PIC) is your information resource for everything in Arts! Drop in at SS110, call us at 403-220-3580 or email us at artsads@ucalgary.ca. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.
- For program planning and advice, contact the Student Success Centre at (403) 220-5881 or visit them on the 3rd floor of the Taylor Family Digital Library.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.

Student Ombudsperson and Students' Union Representative

The Student Ombuds Office provides independent, impartial and confidential support for students who require assistance and advice in addressing issues and concerns related to their academic careers. See www.ucalgary.ca/provost/students/ombuds for more information.

The Students' Union Faculty of Arts representative can be reached at arts1@ucalgary.ca.

Emergency Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at www.ucalgary.ca/emergencyplan/assemblypoints. Please check this website and note the nearest assembly point for this course.

Safewalk

The Safewalk program provides volunteers to walk students safely to their destination anywhere on campus (including McMahon Stadium, Health Sciences, Student Family Housing, the Alberta Children's Hospital and the University LRT station). This service is free and available to students, staff and campus visitors 24 hrs/day, 365 days a year. Call 403-220-5333 or use one of the Help phones located throughout campus to request a walk.

Course Schedule

DATE		TOPIC		SOURCEBOOK READINGS	
Jan	08	We	01	Introduction to the course	
	10	Fr	02	Historical outline i: nomads and farmers of the Stone Ages	chapter 1
	13	Mo	03	Historical outline ii: empires of the Bronze Age	chapter 1
	15	We	04	Historical outline iii: the Greek and Roman Mediterranean	chapter 1
	17	Fr	05	Sources of information: archaeology	pages xxii-xxiii
	20	Mo	06	Sources of information: ancient texts	pages xix-xxi
	22	We	07	Sources of energy, and basic machines in antiquity	chapter 2a-b
	24	Fr	08	Hero of Alexandria and mechanical gadgets	chapter 2c
	27	Mo	09	Military technology	chapter 12
	29	We	10	Agriculture i: cultivation and domestication	chapter 3
	31	Fr	11	Agriculture ii: farms and agricultural tools	chapter 3
Feb	03	Mo	12	Agriculture iii: food-processing	chapter 4
	05	We	13	Agriculture iv: food preparation and diet	chapter 4
	07	Fr	14	Hydraulics i: wells and water-lifting devices	chapter 8
	10	Mo	15	Hydraulics ii: water conduction and water conservation	chapter 8
	12	We	16	Hydraulics iii: urban water systems: Athens and Rome	chapter 8
	14	Fr	17	Metals i: mining, metals, and smelting	chapter 9a
	17	Mo		<i>Midterm break: no classes</i>	
	19	We		<i>Midterm break: no classes</i>	
	21	Fr		<i>Midterm break: no classes</i>	
	24	Mo		<i>Class cancelled</i>	
	26	We	18	Metals ii: casting and fine metalworking	chapter 9a
	28	Fr		Midterm Test	
Mar	03	Mo	19	Ceramics i: ancient pottery making	chapter 9d
	05	We	20	Ceramics ii: pottery shapes and styles	chapter 9d
	07	Fr	21	Ceramics iii: glass; an ancient symposium	chapter 9d
	10	Mo	22	Textiles	chapter 9c
	12	We	23	Transportation i: ships	chapter 10b
	14	Fr	24	Transportation ii: harbours	chapter 10b
	17	Mo	25	Transportation iii: wheeled vehicles, roads, and bridges	chapter 10a
	19	We	26	Transportation iv: urban streets; a stone railway	chapter 10a
	21	Fr	27	Trade: currency, weights & measures, and trade	chapter 10c
	24	Mo	28	Time-keeping	chapter 11a
	26	We	29	Communication i: Bronze-Age scripts: cuneiform and hieroglyphs	chapter 11b
	28	Fr	30	Communication ii: alphabets: Greek and Latin	chapter 11b
	31	Mo	31	Communication iii: books and publication	chapter 11b
Apr	02	Tu	32	Construction i: Bronze-Age ziggurats and pyramids	chapter 7
	04	Fr	33	Construction ii: Bronze-Age Greek cities and citadels	chapter 7
	07	Mo	34	Construction iii: classical Greek construction	chapter 7
	09	We	35	Construction iv: Roman imperial engineering	chapter 7
	11	Fr	36	Ancient societies and their attitude to technology	chapter 13
	14	Mo		<i>Bermuda Shorts Day: class cancelled</i>	

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.

General Works

J.P. Oleson, ed. *The Oxford Handbook of Engineering and Technology in the Classical World*.

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*.

A.P. Usher. *A History of Mechanical Inventions*.

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*.

H. Hodges. *Technology in the Ancient World*.

J.W. Humphrey. *Ancient Technology*.

Before the Greeks and Romans

K.P. Oakley. *Man the Toolmaker*.

S. Cole. *The Neolithic Revolution*.

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*.