FORMAT 2

Submit originals (including syllabus) and one copy and electronic copy to the Faculty Senate Office
See http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/ for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL

Attach a syllabus, except if dropping a course.

SUBMITTED BY:

Department	Anthropology	**College/School**	CLA
Prepared by	Dr. Jamie L. Clark	**Phone**	474-5911
Email Contact	jlclark7@alaska.edu	**Faculty Contact**	Dr. Clark

4. **COURSE CLASSIFICATIONS**: (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities

Identification of bones, how vertebrate bone remains may be used to study archaeological site formation processes, site organization, subsistence practices and animal procurement strategies. Preservation in modern depositional environments, paleoecology, vertebrate mortality profiles and demographic structure, site seasonality, bone breakage, taphonomy and faunal remains, and human land use practices. Prerequisites: ANTH 211 or permission of instructor. Stacked with ANTH F615. (3+2)

ANTH F615 Zooarchaeology and Taphonomy
3 Credits Offered Fall Even-numbered years

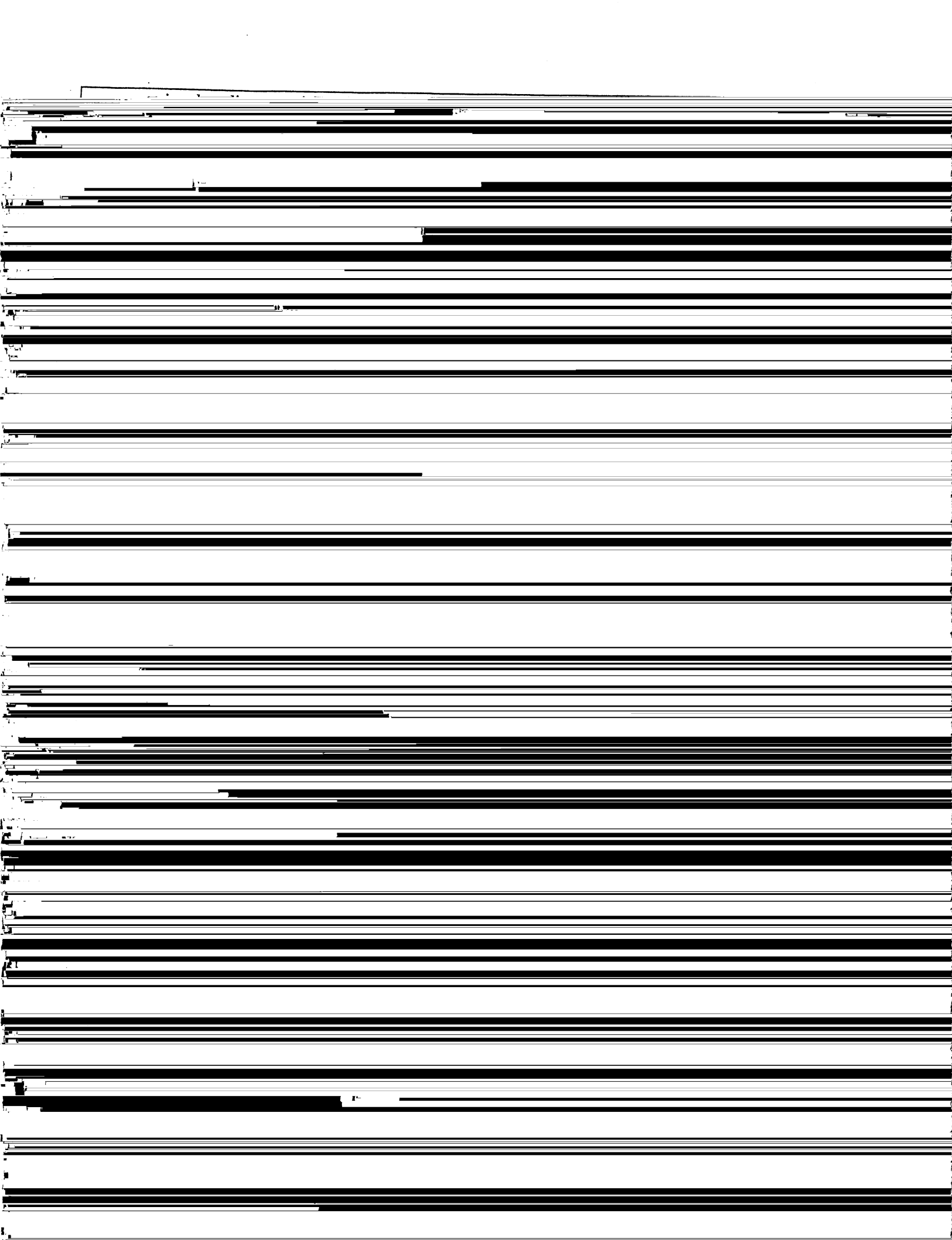
Identification of bones, how vertebrate bone remains may be used to study archaeological site formation processes, site organization, subsistence practices and animal procurement strategies. Preservation in modern depositional environments, paleoecology, vertebrate mortality profiles and demographic structure, site seasonality, bone breakage, taphonomy and faunal remains, and human land use practices. Stacked with ANTH F415. (3+2)

8. IS THIS COURSE CURRENTLY CROSS-LISTED?

JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize course change

SEE ATTACHED SIGNATURES.



ATTACH COMPLETE SYLLABUS (as part of this application).
The guidelines are online:
http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/
The Faculty Senate curriculum committees will review the syllabus to ensure that each of

ANTH 415: Zooarchaeology and Taphonomy (3 credits; 3+2)

Instructor: Jamie L. Clark
Email: jlclark7@alaska.edu
Office:
Office Hours:
Office Phone:

TA:
Email:
Open lab hours: TBD

Course Description: This course is focused on the methods, techniques, and implications of the identification of animal bones from archaeological sites. Besides providing a direct source of data on human diet and past environmental conditions, animal bones can tell us about archaeological site formation processes, site organization, land use practices, animal procurement and processing strategies, urban production and

Reitz, Elizabeth J. and Elizabeth S. Wing. 2008. Zooarchaeology. 2nd edition. New York: Cambridge University Press.

Lyman, R. Lee. 1994. Vertebrate Taphonomy. New York: Cambridge University Press.

Lyman, R. Lee. 2008. Quantitative Paleozoology. New York: Cambridge University Press.

Grading:

Lab Notebook	20%
Quizzes	10%
Lab Assignments/Project	15%
Lab Practical Exam	15%
Discussion Questions	10%
Presentation of Articles for Discussion	10%
Participation in Discussion	05%
Final Paper	15%

Lab Notebook: You will be responsible for creating a notebook which contains images of all of the major bones in the mammalian skeleton (from multiple views) with the primary features labeled. While you **must hand-draw at least 10 bones**, you may take photographs *as long as* the photos are clear, have been printed and labeled, and are placed within a physical notebook. In addition to these drawings, you are welcome to include notes, definitions, reference articles, etc. You should be working on your drawings as we learn the various parts of the skeleton during the first half of the term. **Lab notebooks will be due on XXX**. Grades will be based on completeness, not on your drawing skills. You will be allowed to use this notebook on the lab practical exam at the end of the course.

Quizzes: There will be 7 quizzes in the class; these will test your ability to identify bones and bone fragments. Quizzes will be held in the first 10 minutes of lab on Thursdays, and **there will be no make-up quizzes**. Your lowest quiz score of the semester will be dropped.

Lab Assignments/Project: In the first half of the term, you will complete a series of lab activities and exercises. These assignments will be completed during class and must be checked by myself or John before you leave the lab. During the last 6 weeks of the course, we will be undertaking a major project: re-cataloging the comparative collections owned by the Department of Anthropology (currently stored in xxx). Students will be responsible for recording information in hard copy and digital form (your digital catalog will be due at the end of the last day in the lab; xxx), and we will work together to re-house material that is not properly stored.

Lab Practical Exam: The lab practical exam will be a cumulative test of your identification skills and will also incorporate information from readings and lab assignments (e.g., quantification methods, measurements, etc.) **You will be able to use your lab notebooks on the exam.**

Lab: Taphonomy Lab/Review whole skeleton

Activity: Quiz #4 Carpals/tarsals/feet

Week 8:

Paleoecology III: Human impacts on ancient environments

Readings:
1. Grayson 2001
2. Dean 2005
3. Emery and Thornton 2008

Lab: Bird Lab

Activity: Quiz #5 Complete skeleton

Week 9:

Seasonality

Readings:
1. Enloe and David 1997
2. Monks 1981
3. Todd 1991
4. Simmons and Nadel 1998

Lab: Fish Lab (& Marine Mammals?)

Activity: Quiz #6 Bird remains
L**AB NOTEBOOKS DUE**

Week 10:

The evolution of human diets: the human hunting adaptation

Readings:
1. Dominguez-Rodrigo 2002
2. Stiner 1990
3. Stiner 2002

Lab: Introduction to Lab Project/Cataloging Procedures

Activity: Quiz #7 Fish remains

Week 11:

The Later Pleistocene/Early Holocene: Megafaunal Extinctions and Intensification

Grayson, D. K.
1981

2008 *Quantitative Paleozoology*. Cambridge University Press, New York.

Marean, C. W. and C. J. Frey
1997 Animal Bones from Caves to Cities: Reverse Utility Curves as Methodological Artifacts. *American Antiquity* 62(4):698-711.

Meltzer, D.J.
2006. Late Glacial Envrionment and Climate (sections on isotopic analysis) in: Folsom: New Archaeological Investigations of a Classic Paleoindian Bison Kill. University of California Press, Berkeley. Pp 189-204

Metcalfe, D. and K. T. Jones
1988 A reconsideration of animal body-part utility indices. *American Antiquity* 53(3):486-504.

Monks, G. G.
1981 Seasonality Studies. *Advances in Archaeological Method and Theory* 4:177-240.

Munro, N. D.
2004 Zooarchaeological Measures of Hunting Pressure and Occupation Intensity in the Natufian: Implications for Agricultural Origins. *Current Anthropology* 45(Supplement):S5-S33.

Pauketat, T. R., L. S. Kelly, G. J. Fritz, N. H. Lopinot, S. Elias and E. Hargrave
2002 The Residues of Feasting and Public Ritual at Early Cahokia. *American Antiquity* 67(2):257-279.

Pokines, J. T.
2000 Microfaunal Research Design in the Cantabrian Spanish Paleolithic. *Journal of Anthropological Research* 56(1):95-112.

Prescott GW, Williams DR, Balmford A, Green RE, and Manica A.
2012. Quantitative global analysis of the role of climate and people in explaining late Quaternary megafaunal extinctions. Proceedings of the National Academy of Sciences 109(12):4527-4531.

Reitz, E. J. and E. S. Wing
2008 *Zooarchaeology*. 2nd ed. Cambridge University Press, Cambridge.

Schulz, P. D. and S. M. Gust
1983 Faunal Remains and Social Status in 19th Century Sacramento. *Historical Archaeology* 17(1):44-53.

Scott, E. M.
2008 Who Ate What? Archaeoogical Food Remains and Cultural Diversity. In *Case*

begins on page 9)

Yeshurun, R., N. Marom, G. Bar-Oz
2007 Differential fragmentation of different ungulate body-size: a comparison of gazelle and fallow deer bone fragmentation in Levantine prehistoric assemblages. *Journal of Taphonomy* 5:137-148.

Zeder, M. A.
1988 Understanding Urban Process through the Study of Specialized Subsistence Economy in the Near East. *Journal of Anthropological Archaeology* 7:1-55.

Zeder, M. A., E. Emshwiller, B. D. Smith and D. G. Bradley
2006 Documenting domestication: the intersection of genetics and archaeology. *TRENDS in Genetics* 22(3):139-155.

Zeder, M. A. and B. Hesse
2000 The Initial Domestication of Goats (Capra hircus) in the Zagros Mountains 10,000 Years Ago. *Science* 287:2255-2257.

ANTH 615: Zooarchaeology and Taphonomy (3 credits; 3+2)

Instructor: Jamie L. Clark
Email: jlclark7@alaska.edu
Office:
Office Hours:
Office Phone:

TA:
Email:
Open lab hours:

Course Description: This course is focused on the methods, techniques, and implications of the identification of animal bones from archaeological sites. Besides providing a direct source of data on human diet and past environmental conditions, animal bones can tell us about archaeological site formation processes, site organization, land use practices, animal procurement and processing strategies, urban production and distribution systems, and even about social status and ethnicity.

Course Goals: Students will learn how to identify animal bones, from the identification of specific skeletal elements, to the species represented, to the age/sex of the animal. Students will also learn how to reconstruct the taphonomic history of an assemblage of animal bones, and will be able to identify and discuss the ways in which faunal remains can be used to address questions about the human past.

Learning Outcomes: By the end of the semester, students will be able to:

1) Identify mammalian skeletal remains (both complete and fragmentary), including the identification of specific elements and element portions
2) Distinguish bird and fish bones from mammalian remains

4) Formulate questions about the past that can be addressed using faunal remains, and be able to apply the knowledge gained as part of an original research project.

tructional Methods: The course will consist of lectures, discussions, and a lab mponent (labs will meet in XXX). Generally speaking, Tuesday will consist of a 90 ute lecture, while Thursday's course time will be divided between lecture, student sentations, discussion, and occasional activities. Labs will meet on Wednesdays from pm.

Readings: There is no textbook for the course—the readings are primarily taken from journal articles and book chapters (details in the bibliography at the end of the syllabus). These readings will be posted on Blackboard and available for download. However, we will be doing some reading from three different texts which I would recommend purchasing if you are interested in pursuing further work in zooarchaeology:

Reitz, Elizabeth J. and Elizabeth S. Wing. 2008. Zooarchaeology. 2nd

Lyman, R. Lee. 1994. Vertebrate Taphonomy. New York: Cambridge University Press.

Lyman, R. Lee. 2008. Quantitative Paleozoology. New York: Cambridge University Press.

Grading:

Lab Notebook	15%
Quizzes	10%
Lab Assignments/Project	10%
Lab Practical Exam	15%
Discussion Questions	10%
Critical Summaries	10%
Presentation of Articles	10%

Discussion Questions: All students will be required to submit one discussion question for each assigned reading. These questions will form the basis of our class discussions on Thursday mornings. Note that your question may be about something raised in the reading that you would like to discuss further, something you didn't fully understand, or even something you disagree with. It can also raise a topic that the writer left out but you think is relevant. These are NOT meant to be yes/no questions, or questions about definitions, but rather questions that will facilitate discussion. Your questions must be posted **on Blackboard by noon on Wednesdays**; please also bring a copy of your questions with you to class. Each set of questions will be worth 10 points; submissions turned in late (but received prior to class on Thursday) will receive 5 points, otherwise you will receive a zero for the week.

Critical Summaries: Students will be responsible for writing critical summaries of the articles assigned for the week. I would recommend splitting these up; for example, each person writing one critical summary per week (note that some weeks have three readings, others have five). One student will be responsible for compiling these critical summaries each week, which I will copy and distribute to the class. See the attached handout for more details on what should be included within these critical summaries.

Presentation of Articles for Discussion: Students will work in pairs; each pair will be responsible for presenting the articles for a given topic (I will post a sign-up sheet in the lab, xxx). In addition to presenting critical summaries of the papers, you will lead a discussion of the articles, based in part on the questions posted on Blackboard by your classmates.

Participation: This grade will be based on your degree of participation in class discussions.

Final Paper: Each student will write a research paper (~20 pages, double spaced), which must involve new analysis of a previously published data set; research question and time period/geographic location will be chosen by each student in consultation with myself. **Your topic must be chosen by the end of Week 7.**

Student Support:
I am here to help, so please feel free to drop by my office if there are any problems. There are also a number of different offices on campus designed to provide student support, including the Writing Center (801 Gruening Bldg., 474-5314) a( )-25oe211(0a( )-25o)-7(9 16(er)-11

-Grades will be based the following scale: 100-98, A+; 97-93 A; 92-90, A-; 89-87, B+, 86-83, B, 82-80, B-, etc.
-Attendance is critical to your success in the class, and participation in lab and discussions is part of your grade. In order for absences to be excused, you must have your absence cleared with me in advance of class. Assignments missed as a result of an unexcused absence cannot be made up.
-Please be considerate of your fellow students (and instructors); cell phones should be silenced before entering class, and if you must enter late (or leave early), please do so as unobtrusively as possible. Please note that food and drink are not allowed in the lab.
-Students are expected to read and abide by the Student Code of Conduct (found in the UAF Catalog). Plagiarism will result in an automatic zero for the offending assignment. If you have questions about how to properly cite material, just ask!

Course Outline (subject to change, see bibliography for full citation information for

Week 4:

Skeletal Part Frequencies I: Bone density and utility indices

Readings:
1. Reitz and Wing (pp. 202-221)
2. Lyman 2008 (pp. 214-263)
3. Lyman 1985
4. Metcalfe and Jones 1988
5. Lam and Pearson 2005

Lab: Axial skeleton

Activity: Quiz #1 Crania/teeth
Density exercise

Week 5:

SPF II: Characterizing transport and processing decisions

Readings:
1. Marean and Frey 1997
2. Stiner 2002
3. Clegho02W361Tj -0.004 Tc 0.014 Tw 2.2 0 Td [(Q)-2(u)-24(i)34(z #)-4(a161T)64(c)

Week 11:

The Later Pleistocene/Early Holocene: Megafaunal Extinctions and Intensification

Readings: 1. Koch and Barnosky 2006
2. Prescott et al. 2012
3. Munro 2004

Lab: Cataloging/Rehousing Collections

Week 12:

The evolution of human diets: the origins of agriculture

Readings: 1. Reitz and Wing 2008 Ch. 9
2. Zeder and Hesse 2000
3. Zeder et al. 2006 (focus on parts about animal domestication
4. Greenfield et al. 1988

Lab: Cataloging/Rehousing Collections

Week 13:

****LAB PRACTICAL EXAM (OPEN NOTEBOOK) Tuesday class will be held in the lab****

Week 14:

The zooarchaeology of complex societies

Readings: 1. Crabtree 1990
2. Zeder 1988
3. Stein 1987
4. Landon 2008

Lab: Cataloging/Rehousing Collections

Week 15:

Ethnicity/social status/ideology

Readings: 1. Scott 2008
2. Spielmann et al. 2009
3. Schulz and Gust 1983
4. Pauketat et al. 2002.

Lab: Catalog sheets due at the end of lab

PAPER DUE DURING SCHEDULED FINAL EXAM TIME: XXX

1997 *Rangifer* herd behavior: seasonality of hunting in the Magdalenian of the Paris Basin. In *Caribou and Reindeer Hunters of the Northern Hemisphere*, edited by L. J.