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

SUBMITTED BY:

Department	**Anthropology**	College/School	**CLA**
Prepared by	**Dr. Jamie L. Clark**	Phone	**474-5911**
Contact	[redacted]		

5. COURSE REPEATABILITY:

Is this course repeatable for credit?	YES		NO	X

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).	
How many times may the course be repeated for credit?	TIMES
If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?	CREDITS

6. <u>COMPLETE</u> CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking, clearly showing the changes you want made. (<u>Underline new wording</u> ~~strike through old wording~~ and use complete catalog format including dept., number, title, credits and cross-listed and stacked.)

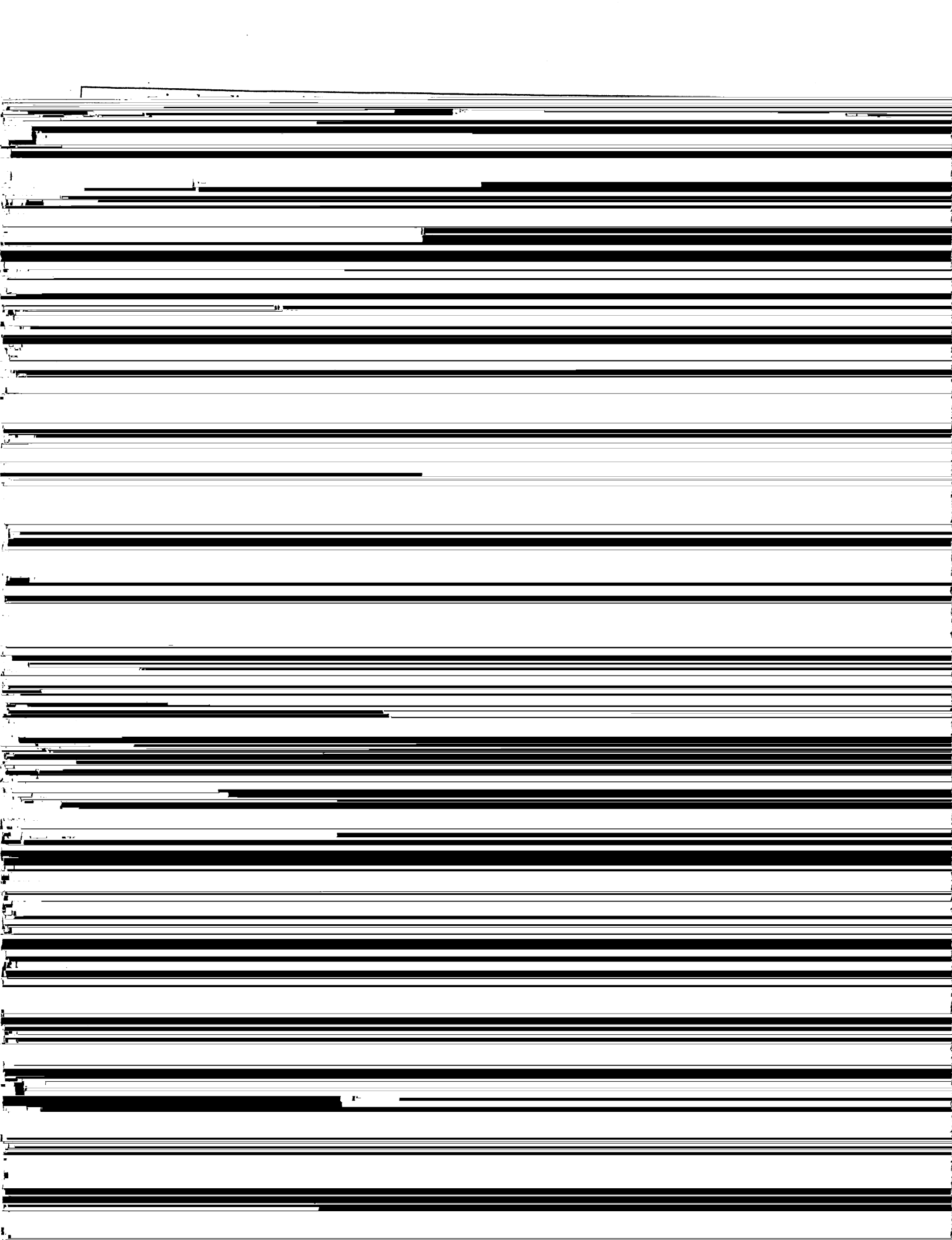
Example of a <u>complete</u> description:

PS F450 Comparative Aboriginal <u>Indigenous</u> Rights and Policies (s)

DROPPING A CROSS-LISTING:

YES		DEPT		NUMBER	

Changing or dropping requires written notification of each department and dean involved. Attach a copy of written notification.



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; 2+3)

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

Lyman, R. Lee.

Thursday mornings.

2. Lyman 2008 (pp. 214-263)
3. Lyman 1985
4. Metcalfe and Jones 1988
5. Lam and Pearson 2005

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

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:

1981 A critical view of the use of archaeological vertebrates in paleoenvironmental reconstruction. *Journal of Ethnobiology* 1:28-38.

2001 The Archaeological Record of Human Impacts on Animal Populations. *Journal of World Prehistory* 15(1):1-68.

Greenfield, Haskel J, John Chapman, A.T. Clason, Allas S. Gilbert, Brian Hesse, Sarunas Milisauskas.

1988. The Origins of Milk and Wool Production in the Old World: A Zooarchaeological Perspective from the Central Balkans. Current Anthropology 29(4) 573-593.

Hill, M. E., M. G. Hill and C. C. Widga

2008 Late Quaternary Bison diminution on the Great Plains of North America: evaluating the role of human hunting vs. climate change. *Quaternary Science Reviews* 27:1752-1771.

Koch, P. L. and A. D. Barnosky

2006 Late Quaternary extinctions: state of the debate. *Annual Review of Ecology, Evolution, and Systematics* 37:215-250

Kreutzer, L. A.

1988 Megafaunal butchering at Lubbock Lake, Texas: a taphonomic reanalysis. *Quaternary Research* 30:221-231.

Lam, Y. M. and O. M. Pearson

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 Studies in Environmental Archaeology*, edited by E. Reitz, C. M. Scarry and S. J. Scudder, pp. 357-374. 2nd ed. Springer, Dordrecht, The Netherlands.

Shaffer, B. S.
1992 Quarter-inch screening: understanding biases in recovery of vertebrate faunal remains. *American Antiquity* 57(1):129-136.

Simmons, T. and D. Nadel
1998 The Avifauna of the Early Epipaleolithic Site of Ohalo II (19,400 years BP), Israel: Species Dversity, Habitat and Seasonality. *International Journal of Osteoarchaeology* 8:76-96.

Spielmann, K. A., T. Clark, D. Hawkey, K. Rainey and S. K. Fish
2009 '...being weary, they had rebelled': Pueblo subsistence and labor under Spanish colonialism. *Journal of Anthropological Archaeology* 28:102-125.

Stein, G. J.
1987 Regional Economic Integration in Early State Societies: Third Millenium B.C. Pastoral Production at Gritille, Southeast Turkey. *Paleorient* 13(2):101-111.

Stiner, M. C.
1990 The Use of Mortality Patterns in Archaeological Studies of Hominid Predatory Adaptations. *Journal of Anthropological Archaeology* 9:305-351.

2002 Carnivory, Coevolution, and the Geographic Spread of the Genus Homo. *Journal of Archaeological Research* 10(1):1-63.

2002 On in situ attrition and vertebrate body part profiles. *Journal of Archaeological Science* 29:979-991.

Todd, L. C.
1991 Seasonality studies and Paleoindian subsistence strategies. In *Human Predators and Prey Mortality*, edited by M. C. Stiner, pp. 217-238. Westview Press, Boulder, CO.

Villa, P., J.-C. Castel, C. Beauval, V. Bourdillat and P. Goldberg
2004 Human and carnivore sites in the European Middle and Upper Paleolithic: Similarities and differences in bone modification and fragmentation. *Revue de Paleobiologie, Geneve* 23(2):705-730.

White, T.D., S.H. Ambrose, G. Suwa, D.F. Su, D. DeGusta, R.L. Bernor, J-R. Boisserie, M. Brunet, E. Delson, S. Frost, N. Garcia, I.X. Giaourtsakis, Y. Haile-Selassie, F.C. Howell, T. Lehmann, A. Likius, C. Pehlevan, H. Saegusa, G. Semprebon, M. Teaford, E. Vbra.
2009. Macrovertebrate Paleontology and the Pliocene Habitat of *Ardipithecus ramidus*. Science 326: 87-93**. (*ALSO READ THE SUPPLEMENTAL MATERIAL, which is a separate file—but only the isotope portion, which 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. *T(yting n(s)th Tc 0.02 (n(s)th T2007)Tj*

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

Instructor: Jamie L. Clark
Email: jlclark7@alaska.edu
Office:
Office Hours:
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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
3) Perform basic taphonomic analyses, including the identification of major taphonomic signatures
4) EMC 0.038 Tw 3.0480.540.26 ( )Tj[(e)-34(d)-58(it)-80(io)-58(n)-18(.)-48(N)-36(e)-34(w)-36( )]

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

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 the assigned readings) **NOTE: The 615 syllabus will ultimately include some readings beyond those assigned for the undergraduates; these readings are TBD**

Week 1:

Introduction to the course

Week 2:

Collecting faunal data: recovery methods and quantification

Readings:
1. Reitz and Wing 2008 (pp. 117-123; 146-152)
2. Shaffer 1992
3. Lyman 2008 (pp 21-82)
4. Yeshurun et al. 2007

Lab: The basics: Bone biology/terminology/etc.

Activity: Quantification exercise

Please skim Reitz and Wing 2008 pp. 31-88

Week 3:

Tues, Sept 11: Intro to Taphonomy and Identifying Agents of Accumulation

Readings:
1. Lyman 1994 (pp. 1-40)
2. Blumenschine et al. 1996
3. Kreutzer 1988
4. Villa et al. 2004

Lab: **Cranial remains/teeth**

Activity: Taphonomy exercise

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. Cleghorn and Marean 2004
4. Lupo 2006
5. Bar-Oz and Munro 2004 *(recommended, but not required)*

Lab: Limb bones

Activity: Quiz #2 Axial skeleton

Week 6:

Paleoecology I: Reconstructing past environments using species-level data

Readings: 1. Bobe et al. 2002
2. Pokines 2000
3. Hill et al. 2008
4. Grayson 1981

Lab: Carpals/tarsals and feet

Activity: Quiz #3 Limb bones

Week 7:

Lab: Taphonomy Lab/Review whole skeleton

Activity: Quiz #4 Carpals/tarsals/feet

Week 8:

Paleoecology III: Human impacts on ancient environments

Readings:2(11.1 0 Td ( )Tj ET 126 679.92(ue)4(98.8 Tm [(R)3(e2.a)Tj -0.)-181e)-70 Tc 0 Tw

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 /TT0 1 T [R/ ( )Tj**

Scudder, pp. 357-374. 2nd ed. Springer, Dordrecht, The Netherlands.

Shaffer, B. S.