ANTH 341 FOOD ORIGINS
FALL 2019 (CRN 10255)
32 Tykeson Hall/ 12:00-1:20 pm on Tue & Thu

Clockwise from top left: Bronze plate with farming motif from Korea; Neolithic millet seeds from China; Skeleton of a Meleagris gallopavo (domestic turkey); and Neolithic grinding slabs from Korea

Prof. Gyoung-Ah Lee
Office: Condon 254
Office hours: 2:00 pm-3:00 pm on Tue/Thu
Contact: galee@uoregon.edu or 541-346-4442

GE. Sophie Miller
Office: Condon 365D
Office hours: 9:30-10:30 am on Fri
Contact: smiller3@uoregon.edu

READINGS
Course Canvas>
Home>Readings
Study all the readings prior to each class.

UO Book Store or E-book available

ACCOMMODATION
A range of supports and services are available through the Accessible Education Center to eligible students. Contact Prof. Lee for further arrangement. For more information:
https://aec.uoregon.edu/content/support-and-services

ACADEMIC INTEGRITY
A respectful environment is key for successful learning.
Check how to avoid academic misconduct and plagiarism at
http://dos.uoregon.edu/conduct
https://researchguides.uoregon.edu/citing-plagiarism
COURSE DESCRIPTION
The course introduces archaeological and scientific data on domestications and origins of agriculture worldwide. The course will explore the ways in which information can be derived from archaeological and genetic data on domesticated species and how this information can be used for understanding agricultural origins in various cultural and environmental settings. This knowledge will be applied to discuss current issues on sustainability and biodiversity. Lectures and sections will provide information on why and how some hunter-gatherers became farmers/herders and the aftermath that brought social, cultural, and environmental changes in the past. Students are expected to demonstrate the core knowledge on the transition to agriculture in discussions in class and sections and through written exams, group presentations, worksheets, film watching and museum visit.

LEARNING OBJECTIVES
The course aims to make students aware of critical research on the subjects and to prepare them to apply the knowledge to their own academic interests. Students will gain the updated knowledge on the transition to agriculture and will compare major theories on the cultural and biological processes involved with the transition to agriculture. Topics are varied in each lecture but the following subjects will reoccur throughout the course:

• Socio-cultural characteristics before and after the emergence of agriculture
• Regional environmental conditions/changes before and after the emergence.
• Biological processes of each domesticated species.
• Cultural roles of domesticated species.

EVALUATION SCHEMES
NO CURVE for this class. Final letter grades will be configured as follows. If the course is taken P/NP, 70% (C-) or higher is required to pass the class.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Score</th>
<th>Description</th>
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<tbody>
<tr>
<td>A+</td>
<td>A+ ≥ 97%</td>
<td>Quality of performance is outstanding relative to that required to meet course requirements; demonstrates mastery of course content at the highest level. A+ is given rarely for performance that significantly exceeds all requirements and expectations.</td>
</tr>
<tr>
<td>A</td>
<td>A ≥ 93%</td>
<td>Quality of performance is outstanding relative to that required to meet course requirements; demonstrates mastery of course content at a high level.</td>
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<tr>
<td>B+</td>
<td>B+ ≥ 87%</td>
<td>Quality of performance is significantly above that required to meet course requirements; demonstrates mastery of course content at a high level.</td>
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<tr>
<td>B</td>
<td>B ≥ 83%</td>
<td>Quality of performance meets the course requirements in every respect; demonstrates adequate understanding of course content.</td>
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<tr>
<td>C+</td>
<td>C+ ≥ 77%</td>
<td>Quality of performance is at the minimal level necessary to pass the course, but does not fully meet the course requirements; demonstrates a marginal understanding of course content.</td>
</tr>
<tr>
<td>C</td>
<td>C ≥ 73%</td>
<td>Quality of performance is at the minimal level necessary to pass the course, but does not fully meet the course requirements; demonstrates a marginal understanding of course content.</td>
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<tr>
<td>D+</td>
<td>D+ ≥ 67%</td>
<td>Quality of performance is at the minimal level necessary to pass the course, but does not fully meet the course requirements; demonstrates a marginal understanding of course content.</td>
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<tr>
<td>D</td>
<td>D ≥ 63%</td>
<td>Quality of performance is at the minimal level necessary to pass the course, but does not fully meet the course requirements; demonstrates a marginal understanding of course content.</td>
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<tr>
<td>F</td>
<td>≤60%</td>
<td>Quality of performance is unacceptable and does not meet the course requirements.</td>
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<tr>
<th>SPECIFICS</th>
<th>SCORES</th>
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<tbody>
<tr>
<td>Lecture participation</td>
<td>10 points</td>
</tr>
<tr>
<td>Section participation</td>
<td>20 points</td>
</tr>
<tr>
<td>Exam 1 / Oct 29</td>
<td>20 points</td>
</tr>
<tr>
<td>Exam 2 / Dec 5</td>
<td>20 points</td>
</tr>
<tr>
<td>Annotated bibliography / Nov 15</td>
<td>15 points</td>
</tr>
<tr>
<td>Group poster / Nov 21</td>
<td>15 points</td>
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COURSE POLICY

✓ Check ‘Requirement for ANTH 341’ & ‘ANTH341 Fall 2019 Section Policy’ in Canvas.
✓ No cell phone use during the class & sections.
✓ A restricted laptop/tablet use. Contact the instructor/GE for permission to use the gadget.
✓ A late annotated bibliography can be handed in up to 3 days late for 1-point per day penalty.
✓ If you miss Exam 1, you must contact me and the GE on the same day of the exam to schedule a makeup exam. You should bring a documented and legitimate reason: i.e., religious holiday, medical emergency, or family crisis. Makeup exam questions and format can be different from the original exam.
✓ No makeup exam will be granted for Exam 2. Instead it will be graded as 60% of your score of Exam 1: Exam 2 score = Exam 1 score X 0.6
LECTURE PARTICIPATION

Attendance, discussion, and evidence of reading will count towards the participation grade.

10 points = 8 for attendance (0.4 each X 20 classes) + 2 for active participation

SECTION PARTICIPATION

Sections consist of lab/museum visits, discussion, worksheet, and lectures, depending on the topics of the week. Students will work on 5 worksheets in selected sections (see the ‘Weekly Schedule’), which will be worth 1 point each. Student can download the worksheet from Canvas >Home>Section Guide folder, bring their own copies to the section, and submit them at the end of the section. If you miss any section, submit the worksheet to the GE by next lecture on Tuesday. A section grade f will be configured as below.

20 points = 8 for attendance (1 per section * 8)+15 for worksheet (3 per worksheet) + 2 for participation

PRINTABLE LECTURE SLIDE GUIDES

The printable lecture slide guides will be uploaded on Canvas >Home>Lecture Guides before or after each class (except of the 1st lecture on Oct 1, exam days, and poster presentation). The guides contain texts but not images from lectures. Students can use these prints as guides to put their notes from readings and lectures. No other form of lectures will be provided and taking photos of slides are not allowed. The 1st section will cover how to use them.

EXAMS 1 & 2

Exams 1 and 2 will take place in class (Oct 29, Dec 5) and students can bring printable slide guides with their notes written on them and section worksheets ONLY to exams. Essay-based exams will require you to integrate and synthesize the course materials and lectures. Each exam (20 points in total) will consist 3 short-answer questions (4 points each, half-page of the provided answer sheets) and 1 long-answer question (8 points, 1 page). The lecture contents, main readings, and section contents will be the subjects of exams. The topics covered after Exam 1 (that is, only from Oct 31) will be the subjects of Exam 2. You are required to bring your photo ID (e.g., UO ID, driving license) to the exams.

ANNOTATED BIBLIOGRAPHY

Students are responsible for producing an annotated bibliography individually for their own research for the poster. Submission Due is on Nov 15 (by 11:59 pm) to Canvas> Assignments> Annotated Bibliography. Sections on Oct 4 and Nov 8 will cover how to build an annotated bibliography and a poster. The annotated bibliography should summarize at least 5 references in total, including 3 references that are your own search (meaning not from lecture or section readings and not overlap with other students’ references in your group). Each bibliography will summarize key contents of readings and its relevance to your presentation about 500 words.

GROUP POSTER PRESENTATION

Groups will present their posters in classroom on Nov 21. Poster files should be uploaded by Nov 20 (11:59 pm) to Canvas> Assignments>Poster. A focus of this assignment is improving your research and presentation skills as well as building knowledge on the subject. More information on this assignment will be provided in sections on Nov 8. The poster presentation subjects are broadly defined, but should be relevant to course materials. See the contents in the box for more information.
## WEEKLY SCHEDULE

* Subject to change.

<table>
<thead>
<tr>
<th>WEEK/DATE</th>
<th>SUBJECTS</th>
<th>READINGS</th>
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| 1 10/1    | Course Introduction  
• Overview of course schedules and assignments  
• History of research on agricultural origins | Textbook (Ch.1) |
|          | 10/3     | Classifying subsistence  
• Modes of subsistence; foraging, food production, agriculture  
• Film watching: Subsistence systems | Textbook (Ch.2: pp. 16-24); Harris 2007  
Film: Bishop & Bishop 2008 |
|          | 10/4     | Film discussion; Forming poster groups; How to read & cite articles; How to build an annotated bibliography. |
| 2 10/8    | Origins of Crop domestication in a global view  
• Primary origins and global spread | Boivin et al. 2016; Larson et al. 2014 |
|          | 10/10    | Methods for documenting domestication  
• Scientific, archaeological methods of detecting plant domestication | Textbook (Ch. 3); Smith 2011a |
|          | 10/11    | Domestication in terms of detoxification & flavor-Worksheet 1. Finalize groups. Section reading: Johns 1990 |
| 3 10/15   | Crop origins in Southwest Asia  
• Cultural and biological perspectives  
• Archaeological evidence of early plant management | Textbook (Ch.4); Arranz-Otaegui et al. 2016 |
|          | 10/17    | Agricultural spread in Europe  
• SW Asian package of domesticated resource  
• Miriam Rigby’s demo on reference search | Textbook (Ch 5. pp. 92-106); Zeder 2008 |
|          | 10/18    | Zooarchaeology Lab Section- Worksheet 2. Section reading: Slides to be uploaded in the Section Folder |
| 4 10/22   | Domestication of Asian crops  
• Wet rice agriculture in South China  
|          | 10/24    | Hunter-Gatherer & Farmer Interactions in Asia  
• Theories on agricultural dispersal beyond origins  
• Beyond cereal crops: arboriculture Socio-economic consequences of agricultural adoption | Crawford 2008; Crawford & Lee 2003 |
|          | 10/25    | Archaeobotany Lab Section- Worksheet 3. Section reading: Pearsall & Hastorf 2011 |
| 5 10/29   | EXAM 1 IN CLASS |
| 10/31    | Origins of Agriculture in Central-South America  
• Domestication of the Columbian Trio  
• Origins of tubers  
• Domestication of draft herds in the Andes | Textbook (Ch. 7, pp. 146-181); Bryant 2007; Ranere et al. 2009 |
| 11/1     | NATIVE GARDEN TOUR: Meeting at the entrance of the Museum of Natural & Cultural History at 1680 E 15th  
https://researchguides.uoregon.edu/citing-plagiarism |
| 6 11/5    | Prehistoric Plant management in Eastern North America  
• Indigenous Eastern crop complex  
• Transition to maize agriculture  
• Turkey domestication | Textbook (Ch. 8. pp. 184-200); Smith 2011b; Speller et al. 2011 |
|          | 11/7     | Animals-Plants-Humans  
• Symbiosis of crop domestication & animal husbandry  
• Companion animal domestations | Larson & Bradley 2014; Larson and Fuller 2014 |
|          | 11/8     | Preparing a group poster; How to make a poster. |
| 7 11/12   | Beyond the Calorific Needs  
• Social role of food  
• Luxury food and social status in archaeological record | Curet and Pestle 2010; Wollstonecroft et al. 2012 |
|          | 11/14    | Food Preparation, Performance, and identity  
• Procuring, fermenting, feasting in archaeological record  
<p>|          | 11/15    | Farming and gender. ANNOTATED BIBLIOGRAPHY DUE. Section reading: Peterson 2007 |</p>
<table>
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| **8**     | **11/19**| Theories on the transition to food production I (40 min)  
• Environmental models  
• Population-resource imbalance models | Bettinger, Richerson & Boyd 2009; Cohen 1975 |
| **11/21** | Poster Session | |
| **11/23** | Discussion on poster: what you learned from other groups’ posters- Worksheet 4. | |
| **9**     | **11/26**| Theories on the transition to food productions II (40 min)  
• System theory  
• Ecological, evolutionary perspectives | Gremillion et al. 2014a, 2014b, 2014c; O’Brien & Laland 2012; Smith 2014; Zeder 2014 |
| **11/28** | THANKSGIVING HOLIDAY | |
| **11/29** | | |
| **10**    | **12/3** | Theories on the transition to food productions III  
• Social relation perspectives: Marxist, Individualism  
| **12/5**  | EXAM 2 IN CLASS | |
| **12/6**  | Looking to the future: discussion on sustainability of agriculture in the past and present- Worksheet 5. | Section readings: Cohen 2008; Diamond 2002; Stiner 2004 |

### WEEKLY READINGS

**Week 1**

Harris, D.  

**Film:**

Bishop, J. M. and N. H. Bishop  

**Week 2**

Boivin, N. L., M. A. Zeder, D. Q. Fuller, A. Crowther, et al.  

Larson, G. et al.  

Smith, B. D.  

**Section readings:**

Johns, T.  

**Week 3**

2016 Regional diversity on the timing for the initial appearance of cereal cultivation and domestication in southwest Asia. *PNAS* 113(49): 14001-14006.

Zeder, M.  
### Week 4

Aikens, C. M. and G.-A. Lee  

Crawford, G. W.  

Crawford, G. W.  

Crawford, G. W. and Lee, G.-A.  

Jones, M. and Liu, X.  

**Section readings:**

Pearsall, D. M. and Hastorf, C.  

### Week 5

Bryant, V. M.  
2007 Microscopic evidence for the domestication and spread of maize. *PNAS* 104 (50):19659-60

Ranere, A. J. Piperno, D. R. Hostl, I. Dickau, R. and Iriate, J.  

### Week 6

Smith, B. D.  

Speller, C. F., B. M. Kemp, S. D. Wyatt, C. Monroe et al.  

Larson, G. and D. G. Bradley  

Larson, G. and F. Fuller  

### Week 7

2010 Identifying high-status foods in the archaeological record. *Journal of Anthropolical Archaeology* 29: 413-431.


Wang, J., L. Liu, T. Ball, L. Yu, and F. Xing  

Wollstonecroft, M. M., P. R. Ellis, G. C. Hillman, D. Q. Fuller et al.  
### Section readings:

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>2014b</td>
<td>Reply to Smith: on distinguishing between models, hypotheses, and theoretical frameworks. <em>Proceedings of the National Academy of Sciences of the USA</em> 111.</td>
<td></td>
</tr>
<tr>
<td>—</td>
<td>2014c</td>
<td>Reply to Zeder: maintaining a diverse scientific toolkit is not an act of faith. <em>Proceedings of the National Academy of Sciences of the USA</em> 111.</td>
<td></td>
</tr>
<tr>
<td>Smith, B. D.</td>
<td>2014</td>
<td>Failure of optimal foraging theory to appeal to researchers working on the origins of agriculture worldwide. <em>Proceedings of the National Academy of Sciences of the USA</em> 111.</td>
<td></td>
</tr>
<tr>
<td>Zeder, M.A.</td>
<td>2014</td>
<td>Alternative to faith-based science. <em>PNAS</em> 111. doi/10.1073/pnas.1408209111</td>
<td></td>
</tr>
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