ANTH 446/546 PRACTICAL ARCHAEOBOTANY
Spring 2015 (CRN 36943/36944)

Professor: Gyoung-Ah Lee
254 Condon Tel. 346-4442 galee@uoregon.edu
Time & Place: 2:00–3:50 pm on Mon & Wed, Lectures at 330 Condon & Labs at 204 Condon
Office Hours: 12:40–2:00 pm, 3:20-3:50 on Wed (Lee); TBA ()
GTF: Recie Levin
365 Condon mlevin@uoregon.edu
Readings: All readings are uploaded in Course BB.

Read the 'Syllabus' and 'Course Requirement' (uploaded on Blackboard). Check your email (uoregon account) and blackboard announcement for course announcements.

Description & Objectives
The course is designed as an introduction to archaeobotanical archaeology. The weekly topics will cover major issues in archaeobotany, including macroscopic plant systematics, co-evolutionary relations between arable weeds and crops, types of crop processing and domestication traced in plant remains, and cultural interpretation on past plant use. Students will learn the basic method of recovering plant remains from the field; laboratory procedures; various qualitative and quantitative assessments on plant remains for archaeological interpretation. Through active participation, you will gain basic analytical skills of plant remains and be capable of critically assessing published sources of archaeobotany and its application to cultural interpretation.

Readings
ALL READING MATERIALS are accessible at Course Blackboard.

Evaluation Schemes

<table>
<thead>
<tr>
<th>Specifics</th>
<th>Undergraduate</th>
<th>Graduate</th>
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</thead>
<tbody>
<tr>
<td>Attendance/participation</td>
<td>20%</td>
<td></td>
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<tr>
<td>2 Identification quizzes</td>
<td></td>
<td>10% each (Apr 22, May 5)</td>
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<tr>
<td>Critical reviews</td>
<td>2 reviews 15% each due on Apr 15 &amp; May 18</td>
<td>3 reviews 10% each due on Apr 15, May 18 &amp; 27</td>
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<tr>
<td>Analytical report (June 5)</td>
<td>20%</td>
<td>10%</td>
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<tr>
<td>Presentation of the report</td>
<td></td>
<td>10% (June 3)</td>
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* There WON'T be a curve. Final letter grades for the course will be figured as follows:
  
  A*: ≥ 97%  A: ≥ 93%  A−: ≥ 90%
  B*: ≥ 87%  B: ≥ 83%  B−: ≥ 80%
  C*: ≥ 77%  C: ≥ 73%  C−: ≥ 70%
  D*: ≥ 67%  D: ≥ 63%  D−: ≥ 60%
  F: < 60%

* If the course is taken P/NP, 70% (C-) or higher is required to pass the class. For graduate students the mark should be 80% (B-) or higher for passing.

Attendance/Participation
Active participation is essential for successful course completion. Class attendance, active discussion, and evidence of reading assigned articles will all count towards the participation grade. A summary of the daily reading assignments is worth of 1 point out of 20 participation marks. You need to upload 5 summaries before each lecture of your choice (Summary folder 1 to 5>Assignment>Blackboard). Each summary should meet the following conditions:

  • Describe the most important theme(s) in each reading assigned for the lecture.
  • The reading summary contains 500 words in total for all the articles assigned in each lecture. For example, if there are three readings, you will summarize all three in 500 words.
  • Provide questions and discussion topics at the end of summary. A word limit (500) does not include questions and topics.
• Paste your summary in the appropriate date of the 'Reading Summary' folder at Blackboard (Assignment in the left folder) before the lecture starts. You may be allowed to submit the late summary within a week of the lecture.
• Students will break into small groups to conduct discussion in each lecture for 20 min. Discussion topics will be selected from your reading summaries or I (or GTF) will provide them.

Grading scheme = 10% Attendance (0.5 each) + 5% Reading summaries + 5% Discussion

Identification Quizzes

Two quizzes consist of 10 questions on species identification of archaeological and modern plant remains through microscopic observation.

Critical Review for Undergraduate Students

Students will select one or multiple topics relevant to the lecture materials for two 3-page length reviews. Use a 12-sized, legible font with double space with a 1-inch margin of the Letter-sized paper. A late assignment will be docked 2% of the total review grade (0.15 point) each day, including a weekend, unless a valid excuse is provided (check the Course Requirement in Blackboard).

Each review will contain the following aspects:

• Summarize the most important theme(s) in each reading you select.
• Compare a concept(s), term(s), definition(s), theory(ies), argument(s), perspective(s) and/or methodologies.
• Provide your critical assessment of each argument, theory, perspective, and/or methodology.
• The references should include academic sources (e.g., articles from peer-reviewed journals, books (chapters) published in the academic publishers).
• Include a 'Reference Cited' at the end of the paper. Follow the citation style of the Journal of Archaeological Science.

Plagiarism is a serious academic offence. Read carefully the following guideline to avoid plagiarism:
http://libweb.uoregon.edu/guides/plagiarism/students/?tab=5

Critical Review for Graduate Students

Students will review one recently published article relevant to the lecture materials per assignment, as if being a referee to determine whether this article is worthy of publication. Fill the review questions in the 'Review Form' and write your assessment in the separate sheet.

Analytical Report

Students will write a report on your analysis of plant remains from a given archaeological site(s) individually. The report contains the quantitative and qualitative summaries of your findings from a sample(s) given, including tables, graphs, and photographs of plant remains. Students need to provide cultural interpretation on data. Write a 5-page length text (a 12-sized, legible font with double space with a 1-inch margin of the Letter-sized paper) and add tables, figures, and references cited. Students are required to upload the report on the 'Assignment>Analytical Report folder' by June 5 (Friday).

Presentation

Students will present your data on plant remains as a team for 15 min on the last day of the term (June 3). Therefore each team need to upload their data (e.g., seed count chart) in Blackboard (Assignment>Identification folder) by June 1. Students can also use other team’s data for comparison. Grading will be based on both group and individual effort equally, so each student will sign his/her name in each slide she/he will make. Each team will upload the presentation file on Blackboard (Assignment>Presentation folder) before the class on June 3.

Readings


Hedlund, S.A.
Jones, M. and Liu, X.


Lee, G.-A.

Lee, G.-A., G. W. Crawford, I. Liu, Y. Sasaki, and X. Chen

Lee, G.-A. et al.

Liu, L., S. Bestel, J. Shi, Y. Song, and X. Chen


McKay, D.B. et al.

Miller, N. F.

Minnis, P. E.

Miseik, C.H.

Orton, C.


Popper, V. S.

Reddy, S. N.

Smith, A.

Smith, B. D.


2006b. Central America as an independent center for plant domestication. PNAS 103: 10312223-10312228. doi:10.1073/pnas.0604335103


Wright, P. J.

Zeder, M. A.

Useful web info: Digital Seed Atlas at http://seeds.elodoc.ub.rug.nl/?planguageen
**Weekly Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Subjects</th>
<th>Readings</th>
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</thead>
<tbody>
<tr>
<td>Lecture 1</td>
<td>3/30</td>
<td>Course Introduction; Research History &amp; Current issues in paleoethnobotany</td>
<td>Minnis 2003; Wright 2010</td>
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<tr>
<td>Lab 1</td>
<td>4/1</td>
<td>Archaeobotany lab tour; basic laboratory procedures: dry sieving</td>
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<tr>
<td>Lecture 2</td>
<td>4/6</td>
<td>Field techniques of recovering archaeobotanical data; issues in preservation; Taphonomy of plant remains</td>
<td>Lee, 2012, Misicek 1987</td>
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<tr>
<td>Lab 2</td>
<td>4/8</td>
<td>Observation of flowering plants (seeds, nuts, fruits); Assigning samples to groups</td>
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<tr>
<td>Lab 3</td>
<td>4/13</td>
<td>Morphology of major Asian crops &amp; arable weeds; analyzing samples</td>
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<tr>
<td>Lab 5</td>
<td>4/29</td>
<td>Asian crop domestication; Site overview; Review 1 due</td>
<td>Lee et al. 2011; Mckey et al. 2012;</td>
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<td>Lab 6</td>
<td>5/4</td>
<td>Issues in Southwest Asian crop domestication</td>
<td>Smith 2006a</td>
</tr>
<tr>
<td>Lecture 4</td>
<td>4/20</td>
<td>QUIZ 1 (30 min); Morphology of major SW Asian domesticates</td>
<td>Smith 1994; Zeder 2011</td>
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<tr>
<td>Lab 7</td>
<td>5/11</td>
<td>Issues in American crop domestication; Ethnological &amp; environmental approach on plant data</td>
<td>Piperno 2011; Smith 2005b, 2011</td>
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<tr>
<td>Lab 8</td>
<td>5/25</td>
<td>QUIZ 2 (30 min); Observing microscopic plant samples;</td>
<td></td>
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<tr>
<td>Lecture 5</td>
<td>4/27</td>
<td>Morphology of major American domesticates; analyzing samples</td>
<td></td>
</tr>
<tr>
<td>Lecture 6</td>
<td>5/4</td>
<td>Case studies on micro-plant remains</td>
<td>Lee et al. 2003; Liu et al. 2013</td>
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<tr>
<td>Lab 9</td>
<td>5/27</td>
<td>Analyzing samples</td>
<td></td>
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<tr>
<td>Lab 10</td>
<td>6/1</td>
<td>Analyzing samples</td>
<td></td>
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<tr>
<td>Lecture 10</td>
<td>6/3</td>
<td><em>Presentation in class &amp; Analytical report due</em></td>
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- The weekly schedule is subject to change.