

# ARCHY 4xx: Archaeological Analysis of Material Culture

Location and Time: TBD  
Instructor: Erik W. Gjesfjeld  
Office: TBD  
Office hours: TBD  
Teaching Assistants: TBD  
Email: erikgjes@uw.edu

## Introduction

Archaeology is a discipline focused on the analysis of material culture. This focus provides archaeologists with a numerous benefits and challenges in understanding human behavior. This course will introduce you to the wide range of concepts and methods used in the analysis of archaeological material with a strong consideration for the theoretical and methodological significance of such research. By the end of the course I expect each student to

- ◆ Be familiar with the basic analysis of archaeological data and radiocarbon data including statistical analysis pertinent to understanding archaeological assemblages and dates
- ◆ Demonstrate competency in the processes and problems with the analysis of common archaeological material including lithics, pottery, floral/fauna remains and geologic material
- ◆ Identify how various methods of archaeological analysis are able to address questions of human behavior and how these methods can be applied to your own research interests

## Course Text

Banning, E.B., 2000. *The Archaeologist's Laboratory*. Kluwer Academic/Plenum Publishing, New York. (Required)

Drennan, R.D., 1996. *Statistics for archaeologists: a commonsense approach*. Plenum Press, New York. (Recommended)

Occasionally, you will also be required to read articles and journal publications in addition to the texts. These will posted on the course website or distributed in class.

## Class Structure

There are two primary class sessions. The first session is a large-group session, occurring twice a week, which will typically involve lectures and group discussions. Class lectures will be a prominent part of the course but I also want you to critically think and discuss many of the issues we will explore. Therefore, large-group sessions will routinely feature question and answer periods, in-class debates and discussion of various archaeological methods of artifact analysis.

The second type of class session, occurring once a week, is your laboratory session. Laboratory sessions will involve hands-on classroom activities and small group discussions that will focus on the analysis of archaeological materials. Due to the limited lab time (50 minutes) you may be asked to do readings and short activities **prior** to the start of the lab session or finish lab activities outside of our scheduled laboratory session. Please purchase a lab notebook to keep all of the lab information in. Lab notebooks will be collected for grading five times throughout the quarter.

### **Grading and Evaluation**

There will be 500 total points in this course awarded in a variety of formats including exams, lab assignments, lab journals, final projects and overall participation. Student performance will be evaluated on the basis of the following:

	<b>Points</b>	<b>Percent of Total</b>
Exams (2)	100 points / 200 total	20% / 40% total
Lab assignments (6)	25 points / 150 Total	5% / 30% total
Lab journals (5)	10 points / 50 Total	2% / 10% total
Research Prospectus (1)	50 points	10%
Participation and attendance	50 points	10%

Percentage	Points	Letter Grade	GPA Value
90-100	450-500	A+	4.0
85-89	425-449	A	4.0
80-84	400-424	A-	3.7
77-79	385-399	B+	3.3
73-76	366-384	B	3.0
70-72	350-365	B-	2.7
67-69	335-349	C+	2.3
63-66	316-334	C	2.0
60-62	300-315	C-	1.7
57-59	285-299	D+	1.3
53-56	266-284	D	1.0
50-52	250-265	D-	0.7
0-49	<250	F	0.0

**Exams:** Each exam will be taken in-class and designed to test your knowledge of the topics presented in lecture and laboratory sessions. The first exam will take place at the end of week 4 and will include all topics discussed in weeks 1-4. The second exam will take place at the end of week 8 and will include all topics discussed in weeks 5-8. The exams will be a combination of multiple choice, short answer and essay questions. There will be **NO** make-up examinations except for **documented** emergencies

**Lab assignments:** Lab sections are essential and mandatory. Lab activities are often devoted to “hands on” exercises and group discussions. The assignments will require original and creative

thought in discussing the various lab topics. Lab assignments are graded and will generally be due in the next week's section class. Because of the nature of these section exercises, they cannot be made up if missed.

**Lab journals:** For this course, lab journals will serve two purposes. First, these journals will be the primary place to record your laboratory data and observations. Second, at the end of each lab sessions, I want you to write 2 paragraphs (approximately 100 words each) concerning the topics of the week. I want thoughtful paragraphs about the topics, such as how the topics we discussed that week relate to contemporary issues or how the discussion topics influence your previous conceptions of archaeology. **I do not want a summary of the topics for that week.**

**Research Prospectus:** The final project of this course will be the development of a research prospectus (10 pages, single spaced with figures). It is my intention that this research prospectus will help you identify the various methods that will be important to your own independent research interests. Each student will consult with me early in the course to discuss possible archaeological sites, methodological issues or materials that they will want to focus their research prospectus on. Additional details about the project will be provided in the course.

**Class participation:** This is primarily a lecture class, although discussions and lab sections will supplement lecture content and readings. Your opinions, questions and commentary are always welcome as long as your opinions respect other students in the course and your instructors. I will not tolerate any disrespectful comments towards student or instructors. Your level of involvement in the class, especially in laboratory sections, will be considered when marks are calculated at the end of the quarter.

**Missed and late assignments/exams:** Points will be deducted for assignments that are handed in late (10% per day late). This rule will be strictly enforced. Missed exams and exercises may not be made up without documentation of an officially excused absence (e.g. a doctor's note). If you will be missing class for an excused reason, please notify your TA in advance.

## **Course Policies**

### **Absences**

Your attendance and class participation is critical to your success in this class. In-class activities and discussions during lecture will help prepare you for exams and lab assignments. Note that labs and in-class activities cannot be made-up at a later date. If you have a legitimate excuse for missing a lab, an alternative assignment will be available.

### **Late Assignments**

It is important to complete your lab assignments for this class on-time so that the TAs can grade them and return them to you. Late assignments will be penalized 5 points per day late. Late assignments will NOT be accepted electronically – you MUST turn in a paper copy.

### **Extra Credit**

One extra lab assignment worth 10 extra points added to your overall lab grade will be available. The details of the assignment will be discussed after the second exam.

## Class Schedule

<b>Week</b>	<b>Topic</b>	<b>Readings</b>	<b>Lab Section Topic</b>
W1	<b>Introduction to Archaeology Data</b> <ul style="list-style-type: none"> <li>• The benefits and limitations of archaeological data</li> <li>• Scales of Measurement</li> <li>• Systematics in Archaeology</li> </ul>	Banning – Chp. 1 & 2	The Formation of Artifacts and Laboratory Safety
W2	<b>Archaeological Survey</b> <ul style="list-style-type: none"> <li>• Research design in CRM and Academia</li> <li>• Sampling Strategies &amp; Recovery Methods</li> <li>• Advancements in Survey (LiDAR)</li> </ul>	Banning – Chp. 4 Orton – Chp. 1	Finding Artifacts: Problems and Procedures <b>Lab Assignment #1</b> <b>Lab Journal Due</b>
W3	<b>Quantifying Archaeology</b> <ul style="list-style-type: none"> <li>• Examining central tendencies and variation</li> <li>• Constructing and testing hypotheses</li> <li>• Testing for significance and probabilities</li> </ul>	Banning – Chp. 5 & 6 Shennan – Chp. 3	Statistics in Archaeology <b>Lab Assignment #2</b>
W4	<b>Dating Methods in Archaeology</b> <ul style="list-style-type: none"> <li>• Relative dating (seriation)</li> <li>• Archaeometric dating</li> <li>• Paleodemography in Archaeology</li> </ul>	Banning – Chp. 14 & 15 <b>Exam 1</b>	Interpreting Radiocarbon Dates <b>Lab Journal Due</b>
W5	<b>Lithic Analysis</b> <ul style="list-style-type: none"> <li>• The <i>chaîne opératoire</i></li> <li>• The anatomy of lithics</li> <li>• Evaluating the function and use of stone tools</li> </ul>	Banning – Chp. 8 Close – Chp. 1	The basics of lithic analysis <b>Lab Assignment #3</b>
W6	<b>Ceramic Analysis</b> <ul style="list-style-type: none"> <li>• Technological choice and pottery production</li> <li>• Ethnographic pottery manufacture</li> <li>• Beyond Style and Function: Understanding human behavior using ceramics</li> </ul>	Banning – Chp. 9 Rice – Chp. 2	The basics of pottery analysis <b>Lab Assignment #4</b> <b>Lab Journal Due</b>
W7	<b>Paleoenvironmental Reconstruction</b> <ul style="list-style-type: none"> <li>• Analyzing Plant Remains</li> <li>• Analyzing Faunal Remains</li> <li>• The importance of interdisciplinary research</li> </ul>	Banning – Chp. 10 & 11	Fauna, Flora, and Flotation <b>Lab Assignment #5</b>
W8	<b>Geoarchaeology</b> <ul style="list-style-type: none"> <li>• Soils and Sediments (Yes, there is a difference)</li> <li>• Traditional methods of geoarchaeology</li> <li>• Advancements in geoarchaeological methods</li> </ul>	Banning – Chp. 12 <b>Exam 2</b>	The basics of geoarchaeology <b>Lab Journal Due</b>
W9	<b>Investigating Trade and Exchange</b> <ul style="list-style-type: none"> <li>• Elemental and mineralogical characterization</li> <li>• The statistics of source groups</li> <li>• Consultation on research prospectus</li> </ul>	Phillips and Speakman 2009 Glascoek et al. 2004	pXRF in Archaeology: Potential, Problems and Procedures

			<b>Lab Assignment #6</b>
W10	<b>The Role of Artifact Analysis in Archaeology</b> <ul style="list-style-type: none"> <li>• Inferring human behavior from artifacts</li> <li>• Artifact analysis in CRM</li> <li>• Interdisciplinary research and what the future holds for archaeological laboratories</li> </ul>		Work on research prospectus  <b>Lab Journal Due</b>
W11	<b>Research Prospectus Due!</b>		