ANTH-530: ARCHAEOLOGY LABORATORY

Effective Term
Fall 2024

BOT Approval Date
12/14/2023

Discipline
ANTH - Anthropology
Course Number
530

Course Title
Archaeology Laboratory

Short Title
Archaeology Laboratory

Credit Status (CB 04)
D - Credit - Degree applicable

Units

Lecture Units
1.00

Lab Units
2.00

Total Units
3.00

Hours

Lecture Contact Hours
16-18
Out of Class Hours Lecture
32-36

Lab Contact Hours
96-108
Out of Class Hours Lab
0.00

Total Contact Hours
112 - 126

Total Out of Class Hours
32 - 36

Total Student Learning Hours
144 - 162

Is this an existing Extensive Lab?
No

Do you want to propose this for Extensive Lab?
No

Distance Education
No

Catalog Description
This course is an introduction to the laboratory processing and preliminary analyses carried out in archaeological investigations. Students will learn to conserve and catalog artifacts collected from archaeological sites, and identify and classify various artifacts while handling them appropriately and protecting their provenience information. Students will also learn curation standards for managing archaeological collections and anticipate ethical issues surrounding illicit antiquities trading and the care of human remains and burial objects.

Requisites

Pre or corequisite(s)

Prerequisite or corequisite(s) (must be taken simultaneously if not taken before)
ANTH-115 (with a grade of C or better) or ANTH-104 (with a grade of C or better).

Codes

TOP Code (CB 03)
2202.20 - Archaeology

CIP Code
45.0299 - Anthropology, Other.

Student Accountability Model (SAM) Priority Code (CB 09)
E - Non-Occupational

Noncredit Category (CB 22)
Y - Credit Course

Repeatability Code
No

Grading Option
Letter grade OR P/NP

Minimum Qualifications

Minimum Qualifications	And/Or
Anthropology (Masters Required)	End

CSU Area(s)

IGETC Area(s)

Learning Objectives

Learning Objectives

Learning Objective
1. Catalog artifacts utilizing a cataloging system and state (CA) archaeological site designations.
2. Practice the use of the vocabulary of professional archaeology to describe artifacts, their attributes, their condition, and their conservation.
3. Locate individual artifacts at any time as the artifacts move through various processes and locations within the laboratory facility.
4. Categorize various artifacts based upon the identification of their raw material (bone, shell, tooth, stone, plant, metal, obsidian, basalt, ceramic, Egyptian paste, and more).

5. Choose between different analytical techniques used in archaeological analyses (such as seriation, refit, use-wear) for the appropriate analysis of particular artifacts.

6. Differentiate between various treatment techniques for the curation of various material types (newsprint, fish scales, charcoal, seeds, flotation samples, pollen, volcanic ash, rusting cans, and more).

7. Set up and use appropriate classification systems for the analyses of particular artifacts.

8. Explain the destructive impact of illicit antiquities trafficking on the cultural heritage of socially and politically marginalized communities, and its impact on the political and economic sovereignty of Indigenous North American communities.

9. Anticipate ethical issues regarding the care of Indigenous human remains and burial objects and explain the importance of consultation and repatriation, especially under those defined by the Native American Graves Protection and Repatriation Act (NAGPRA).

Learning Outcome Information

Course Learning Outcomes

Learning Outcome
1. Students will catalog artifacts in such a way that provenience and context is preserved.
2. Students will identify construction techniques for ceramic artifacts from sherds.
3. Students will identify the raw materials from which artifacts are constructed & treat the artifacts appropriately based on that identification.

Program Learning Outcomes

Learning Outcome
1. Analyze the interrelationship between humans and their physical environment.
2. Apply the principles of cultural relativism to observations of human behavior.
3. Recognize the validity of people's variable language histories and experiences.
4. Abstract meaning (or Evaluate meaning) from the archaeological and fossil records.
5. Relate Natural Selection to hominin evolution.
6. Incorporate the scientific method in observations of human attributes (biology, behavior, language, artifacts).

Institutional Learning Outcomes

Communication: The student will effectively express and exchange ideas through listening, speaking, reading, writing, visual works, and other modes of interpersonal expression.
Critical Thinking: The student will analyze problems, gather and synthesize relevant information, evaluate ideas, information, and evaluate alternative points of view to create, innovate and implement effective solutions.
Cultural Awareness and Humility: The student will demonstrate knowledge of and sensitivity toward individuals of diverse ethnicity, age, gender, sexual orientation, and religious affiliations, as well as toward those individuals with diverse abilities and socio-economic classes to respectfully interact with individuals of diverse perspectives, beliefs and values while being mindful of the limitation of their own cultural frameworks.
Scientific Awareness: The student will apply the scientific method of inquiry to assess potential solutions for real-life challenges by employing science-based knowledge and methodologies in daily life.
Social Awareness: The student will recognize and analyze the interconnectedness of global, national, and local concerns, analyzing cultural, political, social, and environmental issues from multiple perspectives and appreciate similarities and differences among cultures.
Civic
Personal
and Professional Responsibility

Content

Course Lecture Content

1. Introduction to the importance of laboratory processing in archaeology
   a. The connection between the lab and the site
   b. Goals and purposes of processing and cataloging protocols
   c. Past and present approaches to archaeological collections and the acquisition of archaeological material
2. Ethics of Museum and Archaeological collections

a. Illicit trade in antiquities and ARPA: Archaeological Resources Protection Act of 1979
   i. Provenance (origin, source, history of ownership)
   ii. Red Lists, international agencies, demand for antiquities, foreign conflict
   iii. Impact of the loss of cultural heritage on descendant communities, including, for instance: accurate depictions of the past; appreciation of technological feats and which cultures are considered “advanced” in popular culture; cultural identity; land repatriation and land use rights; political and economic sovereignty.
b. Human remains and burial objects
   i. NAGPRA: North American Graves Protection and Repatriation Act of 1990
   ii. Consultation and repatriation
   iii. Inventory maintenance and compliance under NAGPRA (Native American Graves Protection and Repatriation Act) 36 CFR Part 79.11: periodic inventories and inspections
   iv. Culturally-unidentifiable remains and special cases

3. Identification of various general material types
   a. Assessment
   b. Typology (including comparative collections, seriation)
   c. Documentation
      i. Photography
      ii. Illustration
      iii. Reconstruction drawing
   d. Further analyses: methods, benefits, and feasibility
4. Curation and Collections Management: Caring for archaeological collections
   a. Accessioning
      i. Repositories; Planning ahead for the long-term care of objects
      ii. Registration
   b. Initial processing
      i. Cataloging
      ii. Labeling and appropriate materials
      iii. Conservation and reconstruction (brief introduction to these fields)
   c. Maintaining Inventory
      i. Indexing and preserving records for the long term
      ii. Inventory control
      iii. Ethics: periodic inventories and inspections for compliance with Federal and State law (including NAGPRA)
   d. Record keeping
      i. Provenience (context, permissions, and record-keeping)
      ii. Cultural Resource Management (CRM) and Federal and State law
      iii. Maintaining the connection between the object and its documentation
   e. Public use and exhibition
      i. Ethics in public exhibition of some artifact types
      ii. Practical considerations: audience, materials, length and breadth of exhibition
   f. Electronic Database
      i. Using standard museum cataloging systems like NetX, eMuseum, or Argus
      ii. Designing your own Access or FileMaker database
   g. Artifact Photography
      i. Equipment
      ii. How to light your objects
   h. Artifact Illustration
      i. Equipment
      ii. Illustration standards (lighting, how to convey reconstruction or missing pieces, etc.)
5. Treatment of particular material types (special processing considerations, classification systems, and curation and preservation issues)
   a. Ceramics
      i. Methods used for manufacture
      ii. Style (shape, decoration)
      iii. Size
      iv. Residue
   b. Lithics

i. Groundstone
ii. Manufacture
iii. Style
iv. Size
v. Material

c. Chipped Stone
i. Manufacture
ii. Style
iii. Size
iv. Material

d. Faunal remains
i. Vertebrates
1. Identification to taxon
2. Anatomical elements (body parts)
3. Marks from cultural activity

ii. Invertebrates
1. Identification to taxon
2. Anatomical elements (body parts)
3. Size
4. Marks from cultural activity

iii. Botanical remains
1. Pollen cores and pollen and phytolith samples

Course Lab Content

1. Identification of various general material types
   a. Identify material type (ceramic, lithics [groundstone or chipped stone], faunal remains [vertebrate or invertebrate], botanical remains, etc.).
   b. Identify the methods used for manufacture.
   c. Identify any residue or use-wear on the object.
   d. Find the dimensions of the object and draw the object, using a scale. Illustrate any residue or use-wear using standard illustration techniques.
   e. Photograph the object, using a scale.
2. Cataloging artifacts
   a. Labeling artifacts using appropriate procedures
   b. Record-keeping according to Federal and State guidelines
   c. Record-keeping to continuously associate an object with its information
   d. Storage considerations of artifacts with regard to temperature, humidity, or other preservation issues.
   e. Indexing and preserving records for the long term
   f. Inventory control and ethics with regard to inventories and inspections
   g. Public use and exhibition: practical considerations (care and handling issues) and curating objects with regard to public interest
3. Treatment of particular material types
   a. Ceramics
      i. Methods used for manufacture
      ii. Style (shape, decoration)
      iii. Size
      iv. Residue
      v. Seriation (typology)
   b. Lithics
      i. Groundstone
         1. Manufacture
         2. Style
         3. Size
         4. Material
      ii. Flaked lithics

1. Manufacture
2. Style
3. Size
4. Material

iii. Faunal remains
1. Vertebrates
   a. Identification to taxon
   b. Anatomical elements (body parts)
   c. Marks from cultural activity
2. Invertebrates
   a. Identification to taxon
   b. Anatomical elements
   c. Size
   d. Marks from cultural activity
3. Botanical remains
   a. Pollen cores & pollen samples
   b. Plant macrofossils
   c. Artifacts manufactured from plants
4. Metal artifacts
5. Paper
6. Glass
7. Items collected for dating

Methods of Instruction

Method

Discussion

Integration

Class discussion threading throughout lab sessions encourages the development of appropriate vocabulary as well as critical thinking about analyses in archaeology. Discussion also enables students to explore and articulate important ethical issues in archaeology, most importantly how the destruction of a people's cultural heritage (or the inability to effectively safeguard it) has a very real, very destructive, and very lasting impact upon marginalized communities, especially Indigenous North American communities, up to and including an erosion of their economic and political sovereignty. Discussion also enables students to fully explore and articulate the implications of depictions of the past that either ignore archaeological evidence, or that rely on pseudoscience to depict an incorrect or incomplete account of human prehistory and history - and to identify that such pseudoscience explanations are often disproportionately directed at non-western, non-white, and Indigenous cultures and societies. Discussion supports and integrates every Learning Objective because it allows for constant exchange of information and for guidance and direction in each lab and lecture process.

Method

Experiments

Integration

Students will experiment with the construction techniques for various kinds of artifacts (e.g. ceramic, basketry, and lithics). This allows students to learn how construction techniques vary, how they might identify the construction techniques used to make the artifacts recovered in a site, how materials feel, and the relevance of various descriptive terms. This activity allows students to select appropriate classification systems for artifacts, ascertain various material types of artifacts, and utilize the vocabulary of professional archaeology.

Method

Hands-on documentation of artifact types

Integration

Students will learn to illustrate and photograph artifacts to document them, and catalog artifacts based upon the in-depth observation of features and use-wear that such documentation methods promote. These methods reiterate to students the different

classes of artifacts and signs of use-wear, and allow them to clarify the process of how artifacts are created. Such hands-on documentation facilitates memory of the object and provides hands-on training for documenting artifacts in museums or in the field.

Method

Homework

Integration

Published reports about archaeological analyses provide models of analyses similar to those carried out in class. Reading these outside of class as homework prepares students to critically evaluate their own lab work in class, encourages the development of professional vocabulary, and makes students aware of the broad variety of analyses and techniques that are available to archaeologists. Outside readings also serve to familiarize students with important legal and ethical frameworks in archaeology that protect and safeguard cultural materials, and further explores the implications of the destruction of cultural heritage upon marginalized communities.

Method

Lecture

Integration

Lecture is important for the introduction of various concepts and for providing information about material types, construction methods, and various analyses. Lecture, at least a short one, is important to all objectives, even if the particular objective is mostly attained through another Instructional Method.

Method

Papers and Reports

Integration

Reports that describe the way in which an artifact classification was designed will enable a student to clarify the thought process involved in developing that classification system. Reports that describe particular artifacts enable students to clarify the process they carried out in the identification of each artifact involving its material type, its manufacture, and its condition.

Method

Projects

Integration

Projects using artifacts allow students to develop their skills with several kinds of artifacts. By completing projects with analytical techniques, students will learn to select appropriate analytical techniques.

Method

Reconstruction of pottery vessels and other materials

Integration

When materials are available, students will learn to reconstruct artifacts (pottery vessels, modern ceramics, lithics, or any available ancient or modern materials) by fitting together their pieces. Students will then use rim diameter diagrams or other charts or comparative materials to reconstruct the size of the original object. These methods familiarize students with professional analysis techniques in the field and directly demonstrate how archaeologists are able to make larger inferences about life in the past from small pieces of material.

Methods of Evaluation

Method

Cataloging

Integration

Cataloging and data entry forms, in paper form or digital, will be checked for accuracy and appropriate vocabulary. This assessment includes the use of site designations and cataloging systems, the correct vocabulary, and the ability to locate artifacts throughout the process of analysis.

Method

Classifications

Integration

Classifications will be examined for mutually-exclusive classes. This assessment relates to student objective for devising, choosing and using appropriate classification systems for artifacts. This assessment can apply to the physical grouping of the artifacts as well as to the written report about the development of the classification system.

Method

Descriptions

Integration

Descriptions of artifacts (photos, drawings, measurements, written reports) will be assessed for content, attention to detail, and accuracy. Students will need to provide a scale for drawings and photographs, and where necessary orient each using a North arrow. This assessment relates to the ability to identify material types and to use the language of the discipline to clearly describe artifact attributes and communicate discoveries using accepted protocols.

Method

Papers

Integration

Reflections of case studies in archaeology will demonstrate the student's ability to critically assess and reflect upon the impact of methods of excavation, preservation, and curation with respect to ethical issues. For example, case studies may examine the impact and shortcomings of various legislation to protect cultural objects and human remains, or historical excavations that targeted 'valuable' materials and ignored ecofacts or artifacts of more humble manufacture, or explanations of the past that ignore archaeological evidence or use pseudoscience to depict an incomplete or inaccurate account of the contributions of non-western, non-European, or Indigenous societies. Reflections will be evaluated based on accuracy, completeness, and the ability of students to discuss at length the ramifications of ignoring ethical considerations on investigations into and depictions of the past.

Assignments

Assignment Type

Writing

In-class and/or outside of class

In-class
Outside of class

Formative or Summative

Formative

Assignment

Using the Sears-Roebuck catalog, find three historic period artifacts.

a. Identify the object. What is it called? What is its stated purpose? Pay attention to how it is advertised. Do you think that people would have used the object for the same purpose that it is advertised?
b. How much does the object cost? Who do you think intended to purchase the object? Why? Are there any clues to whether this object is expensive or inexpensive?
c. Can you determine when the object was made? Has it been around for a long time, or is it a new 'invention'?
d. Analyze: Can you determine where the object was made? What kinds of facilities would have been required to make the object? Who likely constructed it? Can this tell you anything about the kind of society that uses this object? Can you categorize the type of society, or would the use of this object cause you to mis-identify the type of society? Why and how?
e. Analyze: what might the object communicate, in terms of ownership? Would this be a marker of status? Why, specifically? Would the use of the object save time, and how, or would it be a symbol of a specific way of life, for instance modern or traditional? Might the object make a political statement, or connect its owner to a wider social or political message? How and what might that movement or message be? To what extent can you detect this wider message: is it obvious, or available only to insiders?
f. Write a half-page summation of your analysis for each object. Summarize the information that you collected from the above questions. In your summation, find a similar object that we currently use. How is this object similar to the one you found in the catalog? Does your object signify or communicate something similar about the society or the people who make it, or who use it?

Assignment Type

Writing

In-class and/or outside of class

Outside of class

Formative or Summative

Summative

Assignment

Read the attached case study of an archaeological site that has been partially destroyed by looting. Even though it was later excavated by professional archaeologists, looting has had an impact on what the archaeologists were able to determine about the site, and the people who used it. In a three-page written reflection, discuss the following: 1. What information has been lost to archaeologists because of the looting activity? 2. What is the full impact of the looting activity: a. Upon a scientific understanding of the site and its occupants? b. Upon the descendant community: individuals who trace their heritage to the people who used this site? 3. Finally, what steps do you think archaeologists and heritage experts could take to communicate the importance of safeguarding cultural heritage to the general public?

Assignment Type

Other

In-class and/or outside of class

In-class

Formative or Summative

Formative

Assignment

Use these bags of pottery sherds. Each sherd has already been labeled with a catalog number.
a. Examine the sherds and sort them into a classification that you design based upon material type. Photograph the classification groups. Label each and use a scale in the photo.
b. Examine the sherds a second time. This time, sort them into a classification that you design based upon decoration. Photograph the classification groups. Label each and use a scale in the photo.
c. Examine the sherds a third time. This time, sort them into a classification based upon manufacturing technique (wheel-thrown, coil, mold, modeled, or a combination). Photograph this classification. Label each and use a scale in the photo.
d. Describe the attributes that you used to determine each of the groupings. Then compare and contrast the results of each classification. Is any one classification scheme better or worse than another? Do they give the same results? What did you learn from this process?

Assignment Type

Reading

In-class and/or outside of class

In-class
Outside of class

Formative or Summative

Formative

Assignment

Read the attached case study of the methods employed by Flinders Petrie to establish a chronology for tombs in ancient Egypt. The tombs were not built on top of each other, and so Petrie could not use principles of stratigraphy to determine their relative age (which tombs were oldest or youngest, and which tombs were contemporaneous). Instead, Petrie developed a completely new technique called frequency seriation. This method relies upon examining the characteristics of artifacts, and their relative frequency within each tomb, in order to determine their chronological sequence (which tombs are oldest, youngest, and which are contemporaneous).

In this assignment, you will create your own example of the very same process!

Identify some object that can be dated using frequency seriation, and that has taken at least five different forms over its lifetime. Some ideas are given on the following handout. Pick any object that is not used as an example. Write a reflection answering the following: Explain your idea for what could be dated using seriation, and how. How does the object change over time? In what ways? How do we know? Where could archaeologists or historians look to find examples of this object changing over time (like in fashion magazines for skirts)? Take pictures or find pictures of the five forms that this object has taken. At least two of these photos need to be scaled: they need to contain a scale in the photograph.

Course Materials

Textbooks

Banning, Edward B. (2020). The Archaeologist's Laboratory: The Analysis of Archaeological Evidence. Springer. ISBN-10: 3030479900; ISBN-13: 978-3030479909.

Sutton, M.Q. and B. Arkush (2019). Archaeological Laboratory Methods: An Introduction. 7th edition. Kendall Hunt. ISBN: 9781524979553

Renfrew, C. and P. Bahn. (2020). Archaeology: Theories, Methods, and Practice. 8th Edition. Thames and Hudson. ISBN-10: 0500294240 ISBN-13: 978-0500294246

Other Resources

Klein, R.G. and Cruz-Uribe, K. (1984). Analysis of Animal Bones from Archaeological Sites. University of Chicago Press. ISBN-10: 0226439585; ISBN-13: 978-0226439587.

Adams, B. and Crabtree, P. (2011). Comparative Osteology: A Laboratory and Field Guide of Common North American Animals. 1st Edition. Academic Press. ISBN-10: 0123884373; ISBN-13: 978-0123884374.

Morris, P.A. (1966). A Field Guide to Pacific Coast Shell. 2nd edition. Houghton Mifflin Harcourt. ISBN-10: 0395080290; ISBN-13: 978-0395080290.

Sears-Roebuck catalogs from the 1800's and 1900's (for showing students the details of historic artifacts, or practicing how to examine household materials for distinguishing characteristics).

Open Educational Resources

Digging Into Archaeology: A Brief OER Introduction to Archaeology with Activities.
Amanda Wolcott Paskey and AnnMarie Beasley Cisneros.
https://www.oercommons.org/courses/digging-into-archaeology-a-brief-oer-introduction-to-archaeology-with-activities

Jefferson Patterson Park and Museum pages, Unrestricted use, via OER resources:
https://www.oercommons.org/browse?f.provider=jefferson-patterson-park-and-museum

Prehistoric Art: O.E.R. Collaboration Wiki: http://www.oercommons.org/courses/prehistoric-art/view

SmartHistory videos on YouTube such as The importance of the archaeological findspot: The Lullingstone Busts: https://smarthistory.org/lullingstone-busts/

Class Size Information

Class Size

18

Class Size Category

J - Specialty lab

Diversity and Inclusion

Explain how diversity and inclusion(e.g., gender, culture/race, sexuality, etc.) is infused into the course.

One of the main goals of this course is to demonstrate to students that any depiction of the human past needs to carefully consider scientific evidence in order to accurately understand past cultures and societies. Depictions of the past that rely on incomplete evidence, or that view evidence through the archaeologist's own, ethnocentric cultural lens, are not only inaccurate, but can have a very destructive and lasting impact on descendant communities in a number of ways, including cultural identity and the repatriation of cultural materials and human remains.

For Indigenous North American cultures, there are even greater ramifications: depictions of the past that exclude crucial evidence or that rely on dubious scientific explanations tend to disregard the contributions made by non-European societies. They inadvertently reinforce narratives of white supremacy and colonialism, perpetuating the notion that only European or white civilizations possess sophistication and complexity. Notably, popular television shows often attribute the cultural advancements of non-Western, non-European, and non-white communities to extraterrestrial beings, while these very same cultures frequently suffer from the plundering, trafficking, and irreparable destruction of their cultural heritage.

Fortunately, archaeological legislation establishes protections for cultural materials and human remains, and directs how materials should be ethically and accurately examined, stored, and displayed, as well as repatriated. This course focuses on some of the most pertinent American legislation, which archaeologists working in CRM (Cultural Resources Management) will be required to know and abide by. One of the most important of these laws is the 1991 Native American Graves Protection and Repatriation Act (NAGPRA), which safeguards the remains and burial objects of Indigenous communities in the United States. NAGPRA has led to the ongoing repatriation of these objects to their respective Native communities in contemporary society. Given its significance, this Course Outline of Record includes NAGPRA as a mandatory component. However, instructors are also encouraged to explore similar processes within and beyond the United States, for instance the illegal trade in antiquities on global websites such as eBay and Etsy, which regularly feature materials recovered through illicit excavations in war zones (most notably Iraq, Yemen, and Syria).

Often, legislation can fail to safeguard cultural materials, despite the best of intentions. That is why it is important, in this course, to continually emphasize that context is the most important element in safeguarding cultural materials. Without the context from which an artifact was recovered, we can never fully understand the use of that object, and most of the scientific information is lost. Looting and trafficking destroys such context. Further, this course trains students to understand how careful examination of materials, according to the scientific method, often reveals tiny details that can re-write the entire human story. At the same time that we outfit students with knowledge of important legislation, we are showing them the impact of careful analysis on what we conclude about cultures and societies of the (sometimes distant) past. By employing these methods, students will grasp that archaeology serves as an integral and pertinent means to expand our understanding of our shared human heritage, incorporating the diverse and multifaceted aspects of our past. This understanding is vital in promoting representation, appreciation, and autonomy in contemporary descendant communities.

Describe how assignments, instruction, evaluation, course content, and interactions are contextualized for diverse learners promoting an equitable course.

To facilitate the instruction of diverse learners, assignments in this course include both formative and summative assignments to help scaffold the approach of students with different learning styles. Almost all of the material in the course is delivered through in-class demonstration and practice, with attentive oversight by the instructor, who is regularly correcting technique, answering questions, and offering more information and guidance. Whenever possible, most of the lab will be students and instructor working together to catalog original archaeological material that was unearthed in the excavation class: Anthropology 520. Because excavation and cataloging is a united endeavor, when the lab is engaged in this work (which, hopefully, is every semester), our collective catalog is a team effort, with both students and instructor fulfilling key roles on the team, and helping each other as we go along.

Worksheets, readings, and homework scaffold many of the skills required for summative projects in the course. They enable students to practice and/or refresh their knowledge of specific concepts before we apply these concepts to the analysis of real archaeological artifacts. These assignments 'chunk' the information into smaller pieces to facilitate learning and recall, and promote both student-to-student and student-to-content interactions as members of the lab compare information and consider and share new ways of thinking about and remembering the information.

Interactions

Explain how the course will incorporate student-to-student interaction.

In the lab, all students are equally vital members of a team whose goal is to learn to examine, catalog, and analyze archaeological materials. Whenever possible, we will be cataloging artifacts that have been recently unearthed by the Anth 520: Archeological Excavation course, which will be offered in the prior semester. Students complete numerous hands-on assignments as members of a team, or as individuals who then compare their findings with other members of the class. Students complete activities such as: examining and analyzing artifacts of various materials; experimenting with the construction techniques of various kinds of artifacts (e.g. ceramics, basketry, lithics, etc.); completing reports of assessments of artifacts; collaborative discussion involving the interpretation of artifacts, or major theoretical issues, and more. These class-wide discussions enable students to explore, together, the implications of interpreting material correctly (or incorrectly), and what happens when we interpret the past of an entire people based on incomplete, partial, or skewed evidence or perspectives.

Explain how the course will incorporate instructor-to-student interaction.

Instructor-to-student interaction will be achieved through the use of hands-on demonstrations and lecture in the lab, conducted in person during class time. Instructor-to-student interaction is also facilitated by direct instruction, when the instructor is walking students through the steps of an analytical technique or correcting some aspect of the student's performance of that technique. Through such activities, the instructor is available to answer additional questions, talk students through the technique or try out different ways of performing it, and provide more information or clarification about the method and its importance. The instructor also acts as a team member in the course, working with students to catalog the artifacts in what amounts to a collaborative project.

Explain how the course will incorporate student-to-content interaction.

Student-to-content interaction will be achieved through hands-on analysis and cataloging of artifacts and various materials in the lab, as well as assigned readings, worksheets, and homeworks that lead the students to study and practice the material before we work together to put it in practice in the lab. Through such activities, students practice distinguishing between different analytical methods for examining artifacts, including dating techniques, typologies, documentation techniques (drawing, photographing, etc.), methods of curation, and more. Students also work together to create a catalog of artifacts in the lab throughout the semester, for both existing artifacts in the lab as well as any new artifacts unearthed from the Anth 520: Excavation course.

Explain how the course will incorporate student-to-self interaction (metacognitive).

Student-to-self interaction is achieved through hands-on assignments and worksheets completed during class time in the lab, as well as outside readings and homeworks that are assigned. Through these activities, students are challenged to put ideas into practice, both through the physical handling, examination, and analysis of real artifacts, as well as through in-class discussion and other projects. Students experiment with creating artifacts of different materials or working with the raw materials for a specific type of artifact; examine and document artifacts in lab; write descriptions or written reports of artifacts; write papers or reports assessing different methods of excavation, preservation, or curation, etc. Through such activities, students assess the extent to which various analytical techniques are effective at piecing together an understanding of past human lifeways, and the ways in which our understanding of the past is limited by such methods. In collaborative discussion, projects, and papers, students assess the degree to which legislation is effective at safeguarding such important scientific materials, and the implications of laws and regulations that do not protect materials - and which cultures often see their cultural heritage disrespected, stolen, and trafficked. We also discuss, at length, what this means for political and economic sovereignty, including those of cultures local to us at MSJC, of which many of our students are members.

Key: 172