ACADEMIC SENATE PROPOSAL TRACKING SHEET

(Document To Be Originated by the Academic Senate Secretary On Canary Color Paper)

Proposal # 23-08	Title: New Course Proposal - ANTY 3XX

(Proposal explanation, submitter and college dean signatures on attached program/degree or course revision form.)

All proposals MUST have their originating college faculty body (Arts, Sciences & Education; Health Sciences; Technical Sciences) **approval and must be signed by the submitter and the college dean before being submitted to the Academic Senate Secretary.**

1. Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms or General Education Inclusion form) to the Academic Senate Secretary. **NOTE: Level 1 or Level 2 forms must be submitted concurrent with this proposal where applicable. For Education proposals, PEU approval must be received prior to forwarding the proposal to the Senate.**

2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): General Education (if applicable), or Curriculum. A digital copy of the proposal will be linked on the Academic Senate Proposal page by the Academic Senate Secretary.

3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is returned to the Academic Senate Secretary for forwarding to the next committee. If a committee disapproves the proposal, the committee will provide written rationale to the originator, via the Academic Senate.* The originator may request that the item be forwarded to the next body for consideration. Upon completion of subcommittee action, the proposal will be returned to the Academic Senate Secretary for consideration at the next Academic Senate meeting.

4. The Academic Senate considers the proposal and recommends approval or disapproval. If approved, the proposal is forwarded to the Provost for consideration within 10 working days. If the Academic Senate disapproves the proposal, the Academic Senate will provide written rationale to the originator. * The originator may request that the item be forwarded to the Full Faculty for consideration, utilizing procedures set forth in the Senate Bylaws.

5. Approved proposals will be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor. From this point forward, the Provost's Administrative Assistant will update the Proposal page on the website by contacting the webmaster.

7. The Chancellor approves or disapproves the proposal.

8. If approved, the proposal will then either be implemented or referred to MSU for further action. The tracking page on the Provost site will be updated as required.

Subcommittee and Academic Senate college representatives will notify their respective colleges of the progress of submitted proposals or the proposal may be tracked via the web page -- http://www.msun.edu/admin/provost/senate/proposals.htm

Documentation and forms for the curriculum process are also available on the web page: http://www.msun.edu/admin/provost/forms.htm

*** If a proposal is disapproved, it is returned to the Dean of the submitting college who then notifies the originator.**

See back for tracking form

	Date	Action Taken	Signature	Date	Comments/Reason for Disapproval	Sent to	Date	Transmittal E-mail sent
Received by Senate Secretary	1/4/2024	Tracking form initiated	DocuSigned by: Brittany Garden	1/4/2024	Sent to Curriculum Committee		1/4/2024	DocuSign
General Education Committee (if applicable)		☐ Approved ☐ Disapproved						
Curriculum Committee (if applicable)	1/4/2024	☒ Approved ☐ Disapproved	DocuSigned by: Casey Donovan	1/4/2024	Removed Line about preferred course.			
Academic Senate	1/12/2024	☒ Approved ☐ Disapproved	DocuSigned by: Valerie Guyant	1/12/2024				
Provost	01/22/24	☒ Approved ☐ Disapproved		1/22/24				
Chancellor	1-26-2024	☒ Approved ☐ Disapproved		1-26-2024		Provost	1-29-24	
MSU		☐ Approved ☐ Disapproved						
BOR		☐ Approved ☐ Disapproved						
NWCCU		☐ Approved ☐ Disapproved						
Provost		Advise originating college and Academic Senate of status. Update Web page.						
Registrar		Catalog/Policy Manual Update						

NOTE: The secretary of the Academic Senate will update the Academic Senate Proposal web page from initial receipt until the proposal reaches the Provost. The Provost's Administrative Assistant will ensure that the current status of each proposal is maintained on the Academic Senate Proposal web page from that point forward.

COURSE REVISION FORM

NEW x DROPPED ____ MAJOR REVISION ____ FOR INFORMATION ONLY ____

- For purposes of this form, "For Information Only" should be used for catalog description or objective changes ONLY

College CASE Program Area ANTY

Submitter _____ Dean _____ Date _____
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):
This course gives an upper-level anthropology course for the Biology Major. This gives students more opportunity to engage with science in a different perspective. This will become a required course with the Cultural Resource Management certificate is proposed.

Please provide the following information:

Course Prefix & No.: ANTY 3xx

Current Course Title:
Proposed Course Title (when applicable): Archaeological Science

Current # of Credits: 4
Proposed # of Credits (when applicable): 4

[please specify degrees]:
Required by:
Selective in: Biology Major
Elective in:

General Education Category:

Lecture:
Lecture/Lab: 4
Gradable Lab:

Lecture contact hours per week: 3
Lab contact hours per week: 2

Current Catalog Description (include all prerequisites):

Proposed or New Catalog Description (include all prerequisites):
Archaeological science presents a study of the theory, methods, and techniques used by archaeologists in survey, excavation, analysis, and interpretation, with particular emphasis on artifact analysis. The course introduces students to a broad range of scientific methodologies (including those borrowed from biology, chemistry, physics, and geology) that can be used to answer many questions that archaeologists investigate. This course is divided into four modules: Environment and Landscape, Material Remains, Diet and Subsistence, and Genetics and Isotopes. Lecture and Laboratory hours are included.

Course Outcomes/Objectives:

- Identify, classify, and describe a wide range of artifacts and other material remains
- Demonstrate a clear ability to recover, utilize, analyze and evaluate archaeological remains by achieving a sufficient level of familiarity with archaeological materials
- Discuss significance and limitations of various types of archaeological analyses and the sorts of information obtained from each.
- Understanding of analysis methods and procedures for landscapes, stone, ceramics, metal, bones, and plant remains.
- Understand Archaeology as a science and appreciate the breadth of archaeology and its contributions to and interrelationships with other social and natural sciences.

Please note additional instructional resources needed, if any (including library materials, special equipment, and facilities). Approval does not indicate support for new faculty or additional resources.

Lab Fee $10.00

Updated 4/4/2023

ANTY 3xx: Archaeological Science

Instructor Contact Information

Dr. Kyra Kaercher
HGNRSC 208
406.265.4126

Course Description

Archaeological science presents a study of the theory, methods, and techniques used by archaeologists in survey, excavation, analysis, and interpretation, with particular emphasis on artifact analysis. The course introduces students to a broad range of scientific methodologies (including those borrowed from biology, chemistry, physics, and geology) that can be used to answer many questions that archaeologists investigate. This course is divided into four modules: Environment and Landscape, Material Remains, Diet and Subsistence, and Genetics and Isotopes. ANTY 250 is highly recommended. Lecture and Laboratory hours are included.

Course Objectives

- Identify, classify, and describe a wide range of artifacts and other material remains
- Demonstrate a clear ability to recover, utilize, analyze and evaluate archaeological remains by achieving a sufficient level of familiarity with archaeological materials
- Discuss significance and limitations of various types of archaeological analyses and the sorts of information obtained from each.
- Understanding of analysis methods and procedures for landscapes, stone, ceramics, metal, bones, and plant remains.
- Understand Archaeology as a science and appreciate the breadth of archaeology and its contributions to and interrelationships with other social and natural sciences.

Required Texts and Materials

Richard, Michael, and Kate Britton (eds). 2020. *Archaeological Science: An Introduction.* Cambridge University Press. ISBN 9781139013826 https://doi.org/10.1017/9781139013826

Course Grading

Class Participation 15%
Quizzes/Homework 15%
Lab Reports 25%
Exams 30%
Final Essay: 15%

Grading Scale

A	100 - 93%	C	76 - 73%
A-	92 - 90%	C-	72 - 70%
B+	89 - 87%	D+	69 - 67%
B	86 - 83%	D	66 - 63%
B-	82 - 80%	D-	62 - 60%
C+	79 - 77%	F	59% and under

Class Schedule

Include dates you plan to cover specific topics or readings, due dates for major assignments or exams, and the due date for the final exam. You can find the Finals schedule on the MSUN academic calendar and Registrar's page.

Day	Topic	Readings
Week 1	Introduction	Chapter 1
Week 2	Relative/Absolute dating	Chapter 18/19

	Lab: Radiocarbon	
Week 3	Landscapes and Geomorphology	Chapter 13
	Lab: Geomorphology	
Week 4	Remote sensing	
	Lab: GIS/GPS	
	Exam 1	
Week 5	Stone Tools	Chapter 17
	Lab: Lithics	
Week 6	Ceramics	Chapter 14
	Lab: Petrography	
Week 7	Metal Artifacts/Glass	Chapter 15-16
	Lab; Chemical testing	
	Exam 2	
Week 8	Human Osteology/Teeth	Chapter 7-8
	Lab: Human bones	
Week 9	Zooarchaeology	Chapter 10-11
	Lab: Animal bones	
Week 10	Spring Break	
Week 11	Paleoethnobiology	Chapter 12
	Lab Microremains	
	EXAM 3	
Week 12	Ancient DNA	Chapter 2
	Lab: DNA	
Week 13	Proteomics	Chapter 3
	Lab: Proteomics	
Week 14	Residue Analysis	Chapter 4
	Lab: Residue Analysis	
Week 15	Isotope Analysis	Chapter 5-6
	Lab: Isotope Analysis	
Week 16	Review and **Final Exam**	

Disclaimer: The instructor reserves the right to make modifications to this information throughout the semeste