Course Outline – Anthropology 357
Archaeological Methods

General Information
Course # 357
Term Fall
Year 2020
Course pre-requisite(s) ANTH 201 and one other course in archaeology
Course schedule (day and time of class) Friday 1:05 pm-03:55 pm
Number of credits 3

Instructor Information
Name Callan Ross-Sheppard
E-mail Callan.ross-sheppard@mcgill.ca
Virtual office hours T/Th 3:00-4:00 or by appointment
Communication plan* For office hours book a time slot using Calendly: https://calendly.com/callan-357/15min

TA Information
Name Jennifer Craig
E-mail jennifer.craig2@mail.mcgill.ca

Course Overview
This course is designed to introduce students to the basic methodologies used by archaeologists working in the lab and the field, and in both the academic and commercial contexts (Cultural Resource Management/Heritage Management). The course covers the formulation of research strategies, criteria for selection of archaeological methodologies, principles behind the application of these methods, and the potential results of these methods. We will also examine the often-unideal circumstances that can accompany real world archaeology and discuss how we as archaeologists deal with these circumstances. Also covered is the use of ideas and methods from the natural and physical sciences and the application of these theories and methods to archaeological projects. A strong theme throughout this course will be the role theory has in guiding the selection of archaeological methods, and how archaeological methodology contributes to developing stronger justifications for archaeological reasoning.
The primary objectives of the course are as follows:

1) Provide a broad introduction to archaeological methodologies, archaeological methodological research paradigms, and how archaeologists use the methodologies and theories of the natural and physical sciences to achieve their goals.

2) Provide training in performing some of the basic analytical work used by archaeologists in the field and lab.

3) Provide some explanation of the difficult realities of field and lab archaeology, and some strategies for addressing common issues that arise in field and lab.

Instructor Message Regarding Remote Delivery

This course has been adapted for remote delivery due to the ongoing pandemic. This is a significant change for this course as in previous years this course had a large fieldwork and groupwork component. To adapt to the remote delivery context, the emphasis of the course has shifted to other areas of archaeological methodology (particularly analytical methodologies that take place in a lab environment) while still covering the basis for field techniques. There are challenges associated with delivering and taking a course like this in an online framework. This is especially so during the added stress of a global pandemic. However, I am committed to doing my best to make this learning environment as supportive as possible and adaptable to diverse student needs. McGill has developed some resources for assisting in the transition to remote learning that I encourage you to take a look at (Remote Learning Resources).

Learning Outcomes

By the end of this course students should be able to:

1) Identify a range of the more common methodologies employed by archaeologists in the field and laboratory.

2) Perform some of the basic analytical tasks involved in several of these methods.

3) Be able to evaluate the use of methods in archaeological reports and presentations (i.e. journal articles and books, conference presentations, popular media, archaeological reports).

4) Be able to correctly select methods that would aid in answering specific archaeological questions.

Instructional Method

This course will be taught entirely online due to the situation with COVID-19. Lectures will be delivered via Zoom each week at the usual fixed class time (for more information regarding Zoom please check out McGill’s (Remote Learning Resources). Additional short explanatory videos will also be posted detailing the application of several methodologies (particularly those related to the assignments). Lecture slides will also be posted for each week to ensure students who may not be able to participate in any given week will have access to that content.
Required Readings

There is no textbook for this class. Instead a series of required readings will be posted on MyCourses for each week as well as a selection of optional recommended readings. I may change or add weekly readings depending on our progress. If I add new readings these will replace others listed in the syllabus. In addition to weekly readings individual lab assignments may have required readings you will need to engage with to successfully complete written labs. These will typically not be listed on the syllabus.

Evaluation

Methodology Assignments (80%)

Throughout the course 7 methodology assignments will be posted to mycourses. Students must complete 4 of these assignments but may choose which assignments will comprise their 4 assignments. The rest of the assignments will be skipped. I highly recommend not waiting and picking the last 4 assignments of the course! Each assignment will count towards 20% of the final grade. These assignments will vary somewhat in format according to the topic. Each assignment will be due two weeks after it has been uploaded. These assignments provide experience dealing with real world archaeological data and their completion will involve students performing archaeological analyses, much as a professional archaeologist would. All assignments will be individual, be completed at home and there will be no groupwork. These assignments will be due two weeks after they have been posted (before the regularly scheduled class time of that week). All assignments should be submitted via myCourses (see: FAQs for students using myCourses: Assignments).

Research Design Assignment (20%)

A final written assignment will be given on November 20th and due prior to the last class of the semester. This assignment is required for all and may not be skipped like the methodology assignments. It will consist of several questions requiring long form answers and is designed to solidify the comprehension of the course material. In this assignment students will be asked to apply the principles they have learnt over the course to a novel archaeological situation. Answers must be no longer than two double spaced pages (12pt font).

Handing in Late Assignments

Assignments must be uploaded to MyCourses by the assigned date. Late assignments are penalized 10% of the mark per day including weekends and holidays. Extensions for valid reasons can be obtained with documentation before the due date.

Additional Materials
Some assignments will require the use of specific pieces of software (specifically: Google Earth Pro, OxCal, MyStat or SPSS or Microsoft Excel). These pieces of software are all either freely available to students online (Google Earth Pro, OxCal and MyStat) or available for free through McGill IT services (Excel). However, if students do not have access to a device that can run these pieces of software, then there are enough assignment options provided so that students can complete the course without using any of these pieces of software.

<table>
<thead>
<tr>
<th>Name of Assignment</th>
<th>Required Software</th>
<th>Due Date</th>
<th>% of final grade</th>
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<tbody>
<tr>
<td>Satellite Survey Assignment</td>
<td>Google Earth Pro</td>
<td>Oct 16th</td>
<td>Four assignments must be completed, each worth 20% of the final grade</td>
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<tr>
<td>Relative Dating Assignment</td>
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<td>Oct 23rd</td>
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<td>Harris Matrix Assignment</td>
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<td>Oct 30th</td>
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<td>Classification and Typology Assignment</td>
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<td>Nov 6th</td>
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<td>Radiocarbon Calibration Assignment</td>
<td>OxCal</td>
<td>Nov 13th</td>
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<td>Optical Petrography Assignment</td>
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<td>Nov 20th</td>
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<tr>
<td>Obsidian Sourcing Assignment</td>
<td>MyStat or Excel</td>
<td>Nov 27th</td>
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<tr>
<td>Research Design Assignment</td>
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<td>Nov 27th</td>
<td>20%</td>
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Detailed Course Schedule and Reading Assignments

**Week 1 - September 4th**: Archaeological Practice, Archaeological Science and the Relationship(s) of Method and Theory

**Required Readings:**


**Additional Readings:**


**Week 2 – September 11th**: Archaeological Probability and Graphing

**Required Readings:**


**Additional Reading:**


**Week 3 – September 18th**: Research Design and Sampling Strategies

**Required Readings:**


Additional Reading:

Week 4 – September 25th: Survey, Remote Sensing and Site Location:

Required Readings:


Additional Reading:


Week 5 - October 2nd: Site Mapping, investigation and Excavation:

Required Readings:


Additional Reading:

English Heritage Guide to Geophysical Survey

Week 6 - October 9th: Soils and Sediments

Required Readings:
Week 7 - October 16th: Classification and Typology

Required Readings:


Additional Reading:


Week 8 - October 23rd: Archaeological Chronology

Required Readings:


Malainey, M.E., 2010. A consumer's guide to archaeological science: analytical techniques. Springer Science & Business Media. – Chapters 3 (Intro to Decay) and 6 (Radiocarbon).

Additional Reading:


**Week 9 - October 30th:** Lithic Analysis and Experimental Archaeology

**Required Readings:**


Clarkson, C. And S. O’Connor. 2014 An Introduction to Stone Artifact Analysis. In Archaeology in Practice: A Student Guide to Archaeological Analyses (pp. 151-194).


**Additional Reading:**


**Week 10 - November 6th:** Ceramic Analysis and Optical Petrography:

**Required Readings:**


**Week 11 - November 13th:** Archaeological Chemistry - Compositional Analyses

**Required Readings:**

Pollard, M.A., and Heron, C. 2008. Archaeological Chemistry (2nd ed.). Royal Society of Chemistry: Cambridge. (Chapter 1)


**Additional Reading:**


**Week 12 - November 20th:** Guest Lecture: Maritime Archaeology and Watery Sciences

Readings TBA

**Week 13 - November 27th:** Pollen, Charcoal and Archaeoentomology:

**Required Readings:**


**Additional Reading:**

McGill Policy Statements

Academic Integrity

• "McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for more information).(approved by Senate on 29 January 2003)

"L’université McGill attache une haute importance à l’honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l’on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l’étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site www.mcgill.ca/students/srr/honest/)."

Language of Submission

• “In accord with McGill University’s Charter of Students’ Rights, students in this course have the right to submit in English or in French any written work that is to be graded.” (approved by Senate on 21 January 2009 - see also the section in this document on Assignments and evaluation.)

"Conformément à la Charte des droits de l’étudiant de l’Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté (sauf dans le cas des cours dont l’un des objets est la maîtrise d’une langue)."

Other Policy Statements

• “The University Student Assessment Policy exists to ensure fair and equitable academic assessment for all students and to protect students from excessive workloads. All students and instructors are encouraged to review this Policy, which addresses multiple aspects and methods of student assessment, e.g. the timing of evaluation due dates and weighting of final examinations.”

• “© Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.”

• “As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the Office for Students with Disabilities, 514-398-6009.”

• “McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous people whose footsteps have marked this territory on which peoples of the world now gather.”
« L’Université McGill est sur un emplacement qui a longtemps servi de lieu de rencontre et d’échange entre les peuples autochtones, y compris les nations Haudenosaunee et Anishinabeg. Nous reconnaissions et remercions les divers peuples autochtones dont les pas ont marqué ce territoire sur lequel les peuples du monde entier se réunissent maintenant. »

- “End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student’s learning experience. You will be notified by e-mail when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.”

- “In the event of extraordinary circumstances beyond the University’s control, the content and/or evaluation scheme in this course is subject to change.”