COURSE DESCRIPTION

This course will introduce you to the analysis of stone (lithic) tool form, manufacture, and use as applied to reconstruction of past human lifeways. Topics covered include: methods of shaping stone into tools; reconstruction of the lithic reduction process and stages from discarded debitage; lithic fracture mechanics; identification of lithic material types and sourcing to specific quarries; the meaning of stone tool morphology; tool typology; lithic usewear analysis; and the integrative use of these sources of information to reconstruct aspects of tool use, activity areas, site type, settlement patterns, social group, cultural change through space and time, and trade.

Prerequisite: ARKY 201

COURSE OBJECTIVES

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

- Grasp the historical development of the field of stone tool analysis in archaeology, including theoretical approaches and methods used in archaeology today.
- Apply archaeological methods, techniques and concepts through lab exercises.
- Understand the sources of analogy and principles of experimentation by which researchers test hypotheses regarding ancient technologies.
- Practice hands-on learning and develop basic skills in flintknapping and use-wear analysis.

REQUIRED READINGS

Course textbooks:

Additional readings and Youtube video links will be listed on D2L. Library links to articles, book chapters and videos will be posted on D2L in modules that correspond to the week in which they are due.

All readings and videos are required! Please check the Course Schedule for readings, activities and due dates.
LEARNING TECHNOLOGIES AND REQUIREMENTS

In order to successfully engage in online assignments for this course, please make sure that you have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security and malware updates
- A current and updated web browser
- A webcam (built in or external)
- A microphone and speaker (built in or external) or headset with microphone
- A stable internet connection
- Word processing and spreadsheet software (Instruction will be given using MS Word and MS Excel; Google Docs and Google Sheets will also be accepted)
- D2L and Zoom

COURSE STRUCTURE

Grades will be based on the following course activities. Marks for each activity will be converted into a percentage of the total course grade according to the following rubric. No particular course component must be passed to pass the course as a whole.

**All listed times in this course outline refer to local Calgary time during the Fall Semester (MDT or MST).**

<table>
<thead>
<tr>
<th></th>
<th>Participation</th>
<th>10%</th>
<th>Weekly, see schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Student Virtual Presentation</td>
<td>10%</td>
<td>See schedule</td>
</tr>
<tr>
<td>3</td>
<td>Lab exercises</td>
<td>20%</td>
<td>Weekly, see schedule</td>
</tr>
<tr>
<td>4</td>
<td>Lab quizzes</td>
<td>20%</td>
<td>Sept. 22, Sept. 29, Oct. 6, Oct. 13, Oct. 20</td>
</tr>
<tr>
<td>5</td>
<td>Lithic Analysis Final Project</td>
<td>40%</td>
<td>Portions due Nov. 29 and Dec. 13</td>
</tr>
</tbody>
</table>

**NOTE: There is no registrar-scheduled final examination for this course.**

In this class, grades are assigned according to the following chart:

<table>
<thead>
<tr>
<th>Percentages</th>
<th>Letter grade</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>97-100%</td>
<td>A+</td>
<td>The A range denotes excellent performance.</td>
</tr>
<tr>
<td>90-96.9%</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>86-89.9%</td>
<td>A-</td>
<td></td>
</tr>
<tr>
<td>82-85.9%</td>
<td>B+</td>
<td>The B range denotes good performance.</td>
</tr>
<tr>
<td>78-81.9%</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>74-77.9%</td>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>70-73.9%</td>
<td>C+</td>
<td>The C range denotes satisfactory performance.</td>
</tr>
<tr>
<td>66-69.9%</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>62-65.9%</td>
<td>C-</td>
<td></td>
</tr>
<tr>
<td>56-61.9%</td>
<td>D+</td>
<td>The D range denotes unsatisfactory performance.</td>
</tr>
<tr>
<td>50-55.9%</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>&lt;50%</td>
<td>F</td>
<td>An F denotes failing performance.</td>
</tr>
</tbody>
</table>
COURSE LOGISTICS

Asynchronous course content for the Lecture portion of the course will be posted on D2L in weekly modules corresponding to their due dates. Asynchronous activities will include readings from the textbooks and assigned journal articles, recorded lectures and demonstrations, external videos, online discussions, and online presentations, building on weekly topics. You may be asked to prepare a small amount of material in advance to share during discussions. Students are responsible for all materials covered in both online and in-person modalities.

Synchronous labs will take place each week and may include participatory labs, demonstrations, quizzes, videos, and discussions. If necessitated by public health circumstances, activities may be transferred online where it is possible to do so. The class will be divided into four groups and both ES 859 and ES 743 will be used to allow physical distancing. There will be five in-person lab quizzes in ES 859; additional logistical details will be provided in class.

The course will follow the University of Calgary’s New Measures for Fall Return to Campus, which stipulates that non-medical face masks must be worn in all public indoor areas. As part of this policy, masks must be worn during in-person lab activities. Nitrile gloves will be worn whenever artifacts are handled, as artifacts cannot be subject to cleaning. Students are required to bring their own gloves for flintknapping activities, as these items cannot currently be shared. Please note that in order to be present on campus for in-person lab activities, students will need to either be fully vaccinated, or to complete regular rapid screening tests in accordance with university policy.

Current policy is for students to formally request accommodation for personal health concerns, but please also speak with Dr. Paris and your Teaching Assistant in order to best plan an accommodation.

Please help us ensure that all interactions between course participants are respectful, collaborative, and promote a safe environment for everyone.

COMMUNICATION POLICY

Dr. Paris will hold virtual office hours over Zoom on Wednesdays from 12:00 PM-1:00 PM. Students will be asked to wait in the waiting room, and will be addressed in the order in which they enter the waiting room.

Dr. Paris will hold in-person office hours in ES 859, on Mondays from 12:30 PM-1:30 PM. Students may use the time for quiet study of the comparative collections, asking questions, and working on projects.

For inquiries outside of office hours, please use your UCalgary email address to contact Dr. Paris and your TA. Dr. Paris responds to emails from 9 AM to 5 PM on weekdays. Please expect 24 hours for a response. If more than 24 hours have passed with no reply, check the email address and re-send.

EVALUATION METHODS

ASSESSMENT POLICIES

Most assigned coursework must be submitted through the D2L portal, and will also be evaluated through D2L by Dr. Paris and the TA.

Lab quizzes will be in-person at designated times, and may not be taken outside of designated hours without documented emergency circumstances. In the event of an emergency, please email Dr. Paris and your TA as soon as possible following the incident.

1. PARTICIPATION (10%; 100 marks)
Participation will be assessed for asynchronous activities for the lecture portion of the course, including discussion forums related to course topics and readings, and questions posed to fellow students in response to their Student Virtual Presentation. You may be asked to prepare a small amount of material in advance for discussion posts, discuss assigned readings, or develop ideas in small groups.

The marks for all activities will constitute 10% of all possible marks in the course. Please help to ensure that all discussions are respectful and helpful! Inappropriate comments or posts will be removed and will result in a grade of zero for the post.

2. STUDENT VIRTUAL PRESENTATIONS (10%; 100 marks)

During the second week of class, you will sign up for a virtual presentation date. Available dates are listed in the Course Schedule, and begin in Week 8 of the course. Each student will write and present a 15 minute video presentation on a single topic related to lithic technology, normally related to the topic listed for the student’s chosen date. No more than four students may present on a single date; students may submit preferences through a D2L survey, and the professor will make final presentation date assignments. As part of your presentation, you will need to find at least one current peer-reviewed research article (published in the last 15 years) that is related to the week’s topic, to evaluate as part of the presentation. By 5 pm on the day before the presentation takes place, please email the video file to Dr. Paris, together with a UCalgary library link to your article. Students will also receive participation marks for asking questions and responding to fellow students’ presentations. A separate assignment sheet for the Student Virtual Presentations will be posted to D2L.

3. LAB EXERCISES (20%, 200 marks)

The lab exercises will be scheduled weekly (see Course Schedule). Exercises will involve practical exercises using teaching collections, quizzes, flintknapping exercises, and microscopy. In total, Lab Exercises will represent 20% of all possible marks in the course.

All in-person lab activities will take place with safety precautions determined by the department and university. All flintknapping activities will require students to bring their own leather gloves, which must also be worn continuously during the activity; you may also prefer to bring your own protective eyewear such as safety goggles or carpentry safety glasses. Flintknapping will require long pants and close-toed shoes. You may also wish to wear a labcoat to protect your clothing. You will be responsible for helping with clean-up activities, and for sterilizing any borrowed equipment at the end of the lesson.

4. LAB QUIZZES (20%; 200 marks)

There will be five in-person lab quizzes in the course. The quiz dates are Sept. 22, Sept. 29, Oct. 6, Oct. 13, and Oct. 20. Please see the course schedule. The quizzes will require you to apply the knowledge that you have learned from previous lab exercises to a set of unlabeled specimens. Each quiz will be worth 4% of your final course grade (40 marks each), for a total of 20% (200 marks) of the final course grade.

5. LITHIC ANALYSIS FINAL PROJECT (40%, 400 marks)

The final project in this course will simulate the type of investigation that you would be expected to perform as a lithic analysis specialist on a professional research project, whether in academia or the public sector. For this project, you will analyze both actual archaeological specimens, and experimental replication specimens. You must hand in a research report that contains a full analysis of your sample, using the techniques that have been taught throughout the class.

A separate Lithic Analysis Final Project Handout will be given to you with the specifications for the assignment. Make sure to follow the directions very carefully in order to receive credit.
Given the current pandemic circumstances, archaeological specimens may only be analyzed in the classroom space. Experimental replication collections may be checked out to students for further analysis. Please note that you will receive some class time to analyze the archaeological specimens, but you should also plan to spend extra time outside of class to analyze experimental replication specimens.

Removing archaeological lithic specimens from laboratory spaces is not permitted for any reason. This includes materials assigned for projects and comparative collections. Removing course materials, knowingly or negligently damaging collections and/or university equipment will be reported to the university as misconduct. At the instructor’s discretion, the misconduct may result in failure of the assignment and/or the course.

TECHNOLOGY FAILURE, LATE POLICIES AND DEFERRALS

We are in unique global circumstances due to COVID-19 and international events. If emergency circumstances arise, please contact Dr. Paris and your Teaching Assistant, as soon as possible.

COVID19 OR OTHER ILLNESS

This course will follow the University of Calgary’s New Measures for Fall Return to Campus. Please ensure that you follow all vaccination or testing requirements, including the use of non-medical face masks in order to participate in in-person lab activities.

If you fall ill with COVID19 or another illness, please follow all university guidelines with regard to isolation and testing, and do not attend in-person labs until you are formally cleared for return to campus. Please contact your Teaching Assistant by email and copy Dr. Paris on the message to notify them of the situation. Make-up activities and/or grade redistribution will be arranged on a case-by-case basis.

TECHNOLOGY FAILURE

If the issue is related to a computer crash that may impact an assignment submission deadline, please email Dr. Paris and copy the email to your TA, as soon as possible, following the incident. Please document the problem and circumstances as thoroughly as possible, using a phone, camera, or screenshot. In most cases, you will be asked to seek help from Information Technology so that they may diagnose the cause of the problem, and in most cases you will be required to forward the ticket from IT to Dr. Paris and your TA before further steps are considered. Their email is itsupport@ucalgary.ca and their phone number is 403-220-5555.

For this course, you will be creating and analysing lithic data, which you are responsible for maintaining. You are very strongly encouraged to back up your files in multiple places, particularly your data sheets and text files for your final written report. Options include emailing the files to yourself, using OneDrive storage provided to all UCalgary students, free Google Drive accounts, thumb drives, or external hard drives. Backing up your data is an expected skill in professional archaeology, and it is an expected component of your final written report. Please take all possible steps under your control to make sure that your data is properly backed up.

LATE POLICY

If there are on-going emergency circumstances that result in a late assignment, please notify Dr. Paris and your TA as soon as possible. Please be prepared to explain the circumstances and/or provide documentation (see below). If appropriate, Dr. Paris may transfer the percentage weight for a lab exercise or participation assignment to another assignment. If an exemption is not found to be warranted, late submissions will be assessed a 5% penalty per day.

DEFERRED EXAMS OR WRITTEN ASSIGNMENTS
As per university policy, deferred exams may be approved for the following reasons: illness, religious conviction, or domestic affliction. Please see the Registrar’s exam page for more information: https://www.ucalgary.ca/registrar/exams

Students may be asked to provide supporting documentation for an exemption/special request. This may include, but is not limited to, a prolonged absence from a course where participation is required, a missed course assessment, a deferred examination, or an appeal. Students are encouraged to submit documentation that will support their situation. Supporting documentation may be dependent on the reason noted in their personal statement/explanation provided to explain their situation. This could be medical certificate/documentation, references, police reports, invitation letter, or a statutory declaration, etc. The decision to provide supporting documentation that best suits the situation is at the discretion of the student. Students cannot be required to provide specific supporting documentation, such as a medical note.

Students can make a Statutory Declaration as their supporting documentation (available at ucalgary.ca/registrar). This requires students to make a declaration in the presence of a Commissioner for Oaths. It demonstrates the importance of honest and accurate information provided and is a legally binding declaration. Several registered Commissioners for Oaths are available to students at no charge, on campus, please see ucalgary.ca/registrar.

Falsification of any supporting documentation will be taken very seriously and may result in disciplinary action through the Academic Discipline regulations or the Student Non-Academic Misconduct policy.

REAPPRAISAL OF STUDENT WORK

There are standardized policies on both reappraisal of term work and of final grades. Please refer to them here: https://www.ucalgary.ca/pubs/calendar/current/i-2.html

and here: https://www.ucalgary.ca/pubs/calendar/current/i-3.html

CLASSROOM ATMOSPHERE

- Treat everyone in the class as a colleague—show respect to both your fellow students and instructors, even if you strongly disagree with someone’s opinion. Be friendly, courteous and kind during online discussions and posted responses.
- Please be aware that materials posted to D2L as part of some participation exercises will be visible to the professor and other students.
- Passwords and logins for D2L, Zoom, and all course content, including lectures and recorded meetings, may not be shared with anyone. Only students enrolled in the course may participate in the course.
- All course content is the intellectual property of the professor, with the exception of external links. You may not make or duplicate any video and audio recordings without the explicit consent of the professor, nor transfer them to another student. Please see the Statement on Instructor Intellectual Property below.
- Flintknapping activities have mild safety risks. By participating, you agree to promptly follow all safety instructions from the professor and teaching assistant. Unsafe behavior will not be tolerated, and may result in your removal from the class.
- For any in-person activities, students are required to remain until the end of the lab period to assist with clean-up activities following labs, and to dispose of all materials in a safe manner, as directed by the instructor and TA.
PRINCIPLES OF CONDUCT
The University Calendar includes a statement on the principles of conduct expected of all members of the university community (including students, faculty, administrators, any category of staff, practicum supervisors, and volunteers), whether on or off university property. This statement applies in all situations where members of the university community are acting in their university capacities. All members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: www.ucalgary.ca/pubs/calendar/current/k.html.

GUIDELINES FOR ZOOM SESSIONS
Zoom is a video conferencing program that will allow us to meet at specific times for virtual office hours. To help ensure Zoom sessions are private, do not share Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published with the instructor’s permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity, and in accordance with the principles of fairness, good faith and respect (as per the Code of Conduct). When entering Zoom, you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behavior in these sessions may affect others.

Participants are required to use names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g. Student Non Academic Misconduct Policy). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your Zoom sessions visit: https://elearn.ucalgary.ca/guidelines-for-zoom/.

Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be required to turn on their webcam during synchronous course meetings to promote participation in group work and presentations.

ACADEMIC ACCOMMODATIONS
Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit https://live.ucalgary.ca/student-services/access. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor or the Department Head. The full policy on Student Accommodations is available at https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure.

ACADEMIC MISCONDUCT

“Academic Misconduct” includes such things as cheating, falsification, plagiarism, unauthorized assistance, and failure to comply with exam regulations or an Instructor’s expectations regarding conduct required of Students completing academic assessments.

In this course, academic misconduct will automatically result in a grade of zero marks for the assignment, and will be reported to the University. Students who participate in, or encourage the commission of,
Academic Misconduct will be subject to disciplinary action by the University, which could include Probation, Suspension, or Expulsion from the University.

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at https://www.ucalgary.ca/pubs/calendar/current/k-3.html

Further support on academic integrity is available at: https://ucalgary.ca/student-services/student-success/learning/academic-integrity

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

Student information will be collected in accordance with typical (or usual) classroom practice. Students’ assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

COPYRIGHT LEGISLATION

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks, etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

WELLNESS AND MENTAL HEALTH RESOURCES

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness, and academic success and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support, or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre,
https://www.ucalgary.ca/wellnesscentre/services/mental-health-services) and the Campus Mental Health Strategy website (http://www.ucalgary.ca/mentalhealth/).

Students requiring assistance are encouraged to email the Student at Risk line if they or others appear to need wellness assistance: sar@ucalgary.ca. For more immediate response, please call: 403-210-9355 and select option #2. Contact Information for Student and Faculty Representation.

- Student Union VP Academic 403-220-3911, suvpaca@ucalgary.ca
- Students Union Representatives for the Faculty of Arts – 403-220-3913, arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca.
- Student Ombuds Office information can be found at: www.ucalgary.ca/ombuds/Campus

SUPPORT AND RESOURCES:

Please visit the Registrar's website at: https://www.ucalgary.ca/registrar/registration/course-outlines for additional important information on the following:

- Emergency Evacuation/Assembly Points
- Wellness and Mental Health Resources
- Student Success Centre
- Student Ombuds Office
- Student Union (SU) Information
- Safewalk