Clay, wood, cloth, glass, steel, and plastic. We interact with these materials every day, but rarely do we think about their properties and histories. This course explores the history and technology of materials and the ways they have impacted art, culture, and science. The course will fully integrate historical scholarship and experiential making. Students will both engage with the physical and chemical properties of materials through hands-on manipulation and fabrication at BeAM, studios, and laboratories across campus and study the historical and theoretical debates surrounding material invention and use by artists, architects, scientists, and industries.

Course website: [https://makinghistory.web.unc.edu](https://makinghistory.web.unc.edu)
Password (for accessing the syllabus and readings): beamaker2018

**POLICIES**

**Attendance** may be excused only for religious observance, illness, or emergency with written notice in advance. A single unexcused recitation absence will not be penalized, but each unexcused absence beyond one or excessive tardiness will result in a reduction to your final grade.

**Extensions** will generally be granted only in the case of illness or emergency and NOT for time management difficulties.

**Late assignments** will automatically be reduced 1/3 grade per day. Plan accordingly.

**Laptops, tablets, and smart phones** may NOT be used during class unless required by the professor for a specific project.

Academic integrity is at the heart of Carolina and you are responsible for upholding the ideals the university’s [Honor Code](https://www.unc.edu/). The student-led Honor System at UNC is responsible for adjudicating any suspected violations of the Honor Code and all suspected instances of academic dishonesty will be reported. Plagiarism, cheating, and other acts of academic dishonesty will also result in a failing grade in the course.

**Group work** is an essential component of the course and will be required of several graded assignments. Failure to be a respectful, cooperative, and fairly contributing team member will be penalized.
Grades will be assigned according to the following university guidelines:

A  Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development.
B  Strong performance demonstrating a high level of attainment for a student at a given stage of development.
C  A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development.
D  A marginal performance in the required exercises demonstrating a minimal passing level of attainment.
F  For whatever reason, an unacceptable performance. The student’s performance in the required exercises has revealed almost no understanding of the course content.

It is important to note that you will NEVER be graded on your skill or experience in making. Grades for fabrication projects will, however, take into consideration your creativity, effort, and dedication.

Graded Assignments

Reflections. For each unit, students are expected to write a brief reflection about their hands-on activities (typically due at the following lecture meeting). For “artifact analysis reflections,” students should describe the chosen artifact and make educated speculations about its making, connecting these ideas to lecture, readings, and class discussions whenever appropriate. For “making and knowing reflections,” students should describe the object, your experience with fabrication (challenges, problems solved, etc.), and draw connections to the lecture, reading, and discussion of its corresponding unit. For individual projects, the reflection should be 250-500 words. For team projects, each member of the group is responsible for writing approx. 250 words of the reflection. You are encouraged to use visual media to supplement your writing (an image of your core object at the very least). Reflections should be published as blog posts on the course website. Your posts will be public, so polish and attention to detail really matter.

Final project: material deception. Students will individually make an object in which one material imitates another. The lectures, demos, and reading discussions will have introduced material imitation in various forms throughout the term. Students will have the flexibility to work with any materials and any technologies with which they are familiar or trained to use. The assignment need not be completed within BeAM spaces, but this is encouraged. At least one of the materials (either the actual or the imitated) must go beyond those studied specifically in the course. Accompanying the object will be a 7-page paper on your fabricated object in the form of a museum catalogue entry. It should describe/name your creation; discuss the materials, tools, processes used; and offer historical or contextual background that incorporates research on the materials in question. Each student will also prepare an illustrated presentation on their final projects to share with their peers during finals weeks.
Grade Breakdown
Participation/Attendance       25%
Artifact analysis reflections (2 total)    10%
Making projects and corresponding reflections (5 total) 35%
Final project (fabrication and oral presentation)  20%
Final project (written paper)     10%

Blog post instructions (this is how you will “hand in” each of your reflections):
1. The class website uses WordPress. To post, go to the admin page for the class website: https://makinghistory.web.unc.edu/wp-admin/.
2. On the left of the page, hover your cursor over “Posts” and click “Add New.”
3. Give your post a title that is both descriptive and unique.
4. In the blank window below the title, paste your text. You can use the tools at the top of this window to format the text.
5. Your post should include visual documentation. To add media (photos, video, sound clips, etc.), place your cursor in the text at the location where you’d like your media to appear. Click the “Add Media” button. In the pop-up window, click the “Upload Files” tab. Upload your media file and click the “Insert into post” button on the bottom of the page.
6. Once you’re satisfied with the post itself, proceed to input categories, tags, and a feature image (all are required).
7. Find the categories window on the right side of the screen and check the box that corresponds with the correct unit (clay, wood, etc.). If you do not select a category, your post will not appear on the page associated with the unit.
8. Next, find the “Tags” window below categories and put your name (first and last, always written the same way each time you post). Tagging yourself with each post will allow the professor to grade your reflections.
9. Next, add a feature image to appear by clicking “Set feature image.” The media library will appear. Select one of the media files that you uploaded as part of your post and click the “Set featured image” button at the bottom of the page. This image will appear as a thumbnail on the blogroll with your post.
10. When you’re finished, click the “Publish” button.
11. Double check that your post published correctly. Go to the class website’s blog page: https://makinghistory.web.unc.edu/blog/. Navigate to the correct unit, find your post thumbnail and click it to make sure it reads as you intended.
12. To make changes, return to the admin page for the class website, hover over “Posts” and click “All posts.” Search for the post you wish to edit, make your changes, and click the “Update” button. Repeat Step 11 to verify that your changes published correctly.
Note about the schedule:
After an introductory week, the semester will be broken up into 7 two-week units, each focusing on the history and technology of a specific material that impacted art, culture, and science: clay, wood, cloth, glass, steel, and plastic. Unit will generally consist of four 75-minute meetings: an intro lecture dealing with the history of the focus material, a demonstration at BeAM or other studio/lab setting in which you get hands-on experience with the material, a reading discussion centered on a historical case study related to the material and its theorization or implementation, and a student-directed session in which you share and discuss the making projects you completed outside of class.

Week 1: Introduction

*Thursday, January 11*
Introduction to the course

Week 2: Orientation to BeAM

*Tuesday, January 16*
Onsite: BeAM orientation in Murray Hall
Assignment: Start figuring out when you’ll complete your required BeAM trainings: woodshop (must be completed by 2/6), sewing (by 2/20), and 3D printing (by 4/10)

*Thursday, January 18*
Discussion: Why make?

Week 3: Clay

*Tuesday, January 23*
Lecture: Local clay
Assignment: A low-stakes blog post to familiarize yourself with using WordPress. Follow the Blog post instructions on the syllabus, but instead of posting a reflection paper, you’ll write a 100-word bio about yourself (feel free to share whatever you would like to your classmates as long as it’s appropriate). Your post must include an image embedded in the text. It must also include a “feature image” (which can be the same). For step 7, categorize your post as “Introduction.” For step 11, navigate to [https://makinghistory.web.unc.edu/introductions/](https://makinghistory.web.unc.edu/introductions/) to double check your post (this page is not publically searchable and cannot be accessed without the URL above).

*Thursday, January 25*
Onsite: Making pots, location TBD
**Week 4: Clay**

*Tuesday, January 30*
Ackland Study Session: ceramic artifacts (meet in Ackland lobby, bring pencils for notetaking and a camera for visual documentation)
Reading: Short pieces on contemporary artists using clay

*Thursday, February 1*
Case study: The quest for “white gold”

**Week 5: Wood**

*Tuesday, February 6*
Lecture: Wood work
Assignment due (individual): Artifact analysis reflection on a ceramic object of your choice from the Ackland collection.

*Thursday, February 8*
Onsite: Demonstration of woodworking tools at BeAM in Murray Hall
Assignment due: You now have the opportunity to work with wood. Sketch ideas for what you would like to make using a 6x4x2in block of wood.

**Week 6: Wood**

*Tuesday, February 13*
Case Study: Wood as relic
Thursday, February 15
Making assignment due (individual): modified wood design project: You are allowed to use only four tools to complete your project: woodburner, chisel, sandpaper, saw (may use power version of these tools or hand version)
Your making and knowing reflection should discuss the ways in which you modified your initial design to accommodate tool limitations.

Week 7: Cloth

Tuesday, February 20
Lecture: Textiles and globalization
Assignment due (individual): Reflection on making and knowing wood.
Explore: Watch videos and read short essays on the making of the Planet Money t-Shirt online at https://apps.npr.org/tshirt (for background on the project, listen to the NPR report on the project at https://www.npr.org/2013/12/02/248151300/planet-money-explores-the-economics-of-t-shirts)

Thursday, February 22
Onsite: Loom making and weaving at BeAM in Hanes Art Center
Assignment: sewing training at BeAM on your own by this date

Week 8: Cloth

Tuesday, February 27
Case Study: Gender and textiles

Thursday, March 1
Making assignment due (team): Chose a textile or make your own textile and construct a garment that allows your material to behave uncharacteristically and unexpectedly
For materials, you may use conventional or nonconventional ones, found items or purchased (for affordable cloth, yarn, and unconventional materials, try Scrap Exchange in Durham)

Week 9: Glass

Tuesday, March 6
Onsite: visit to UNC glass fabrication shop (Room A005, Kenan Laboratories, ground floor)
Assignment due (team): Reflection on making and knowing cloth.

Thursday, March 8
Lecture: The history of the window

SPRING BREAK
Week 10: Glass

Tuesday, March 20
Case Study: Glass models
Ackland study session: glass in functional and fine art (meet in museum lobby, bring pencils for notetaking and a camera for visual documentation)

Thursday, March 22
No Class Meeting (Prof. Cao out of town for a conference). Use your time off to take the 3D printing training in preparation for the weeks ahead.

Week 11: Steel

Tuesday, March 27
Lecture: Machine age metal
Assignment due (individual): Artifact analysis reflection on a glass object of your choice from the Ackland collection.

Thursday, March 29
Onsite: wire cutting, bending, and soldering demo at BeAM in Murray

Week 12: Steel

Tuesday, April 3
Case Study: Art and industrial materials
Reading: Michael Fried, “Art and Objecthood” (1967)

Thursday, April 5
Making assignment (team): make a structure using metal wire with weight bearing capability details TBA.
Week 13: Plastic

*Required evening lecture on Monday, April 9 at 5:30pm (location TBA)*
*Art historian Amy Ogata (University of Southern California) will speak about the history of metals in France*

*Tuesday, April 10*
Lecture: Plastic pasts and futures
Assignment due (team): Reflection on making and knowing metal.
By this date, you should have taken 3d printing training at BeAM.

*Thursday, April 12*
Case Study: Disposability
Guest lecture/workshop with artist and UNC Destil fellow Robyn Frohart
Assignment due (individual): print a 3D object that is small enough to fit into a Dixie cut. We will be using this object for mold making and casting. Note that it is best to do this well in advance as the 3d printers can be very busy!!

Week 14: Plastic

*Tuesday, April 17*
Onsite: mold-making workshop at BeAM
Making assignment due (individual): your 3D printed object for mold making
Reading: Roland Barthes, “Plastic” (1972)

*Thursday, April 19*
Onsite: Casting workshop at BeAM

Week 15: Final Projects

*Tuesday, April 24*
Tentative research workshop at the Art Library

*Thursday, April 26*
Bring in designs (drawings and early prototyping experiments) for peer critique

*April 26, 3-5pm*
*QEP Undergraduate Research and Making Exposition, Student Union*
Final Presentations: Monday, May 7 at noon

Bring your final project and prepare a 5 minute Powerpoint presentation discussing your inspiration, goals, and process.