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# ARTC 657 INORGANIC BLOCK SYLLABUS

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SPRING 2024

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## INTRODUCTION

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This syllabus provides details about the goals, content, and assessment of the Spring 2024 Inorganic Block. It is constantly evolving, and constructive comments are welcome.

### COURSE DESCRIPTION

The Inorganic Block covers the basics of the conservation of inorganic materials: mainly, metals, glass, and ceramics. This block builds upon core ethical principles and practical information developed over the preceding sequence of blocks by expanding to a new set of materials.

### GENERAL SCHEDULE AND ATTENDANCE

The block begins on Tuesday, January 23, and concludes on Friday, February 16, 2024. Teaching will take every day with every other Thursday afternoon reserved as unscheduled free time.

Unless otherwise indicated, all classes are held in person in the Student Classroom on the third floor of the Research Building at Winterthur Museum or on Zoom. Attendance and punctuality are expected and required. However, if you need to miss class due to illness or other emergency, please know that you can. Never feel pressured to come to an in-person class if you are sick. Simply be sure to clearly communicate your need to miss class or to Zoom in that day directly with the instructor ahead of time.

Because this block occurs during January and February, we may experience inclement weather that will require shifting of the schedule and flexibility by everyone involved.

## ACKNOWLEDGEMENTS AND COURSE MINDSET

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This course is a safe space where we can feel free to express ourselves without judgement, celebrate our differences, and come together in our shared passion for the care, appreciation, and respect for cultural heritage and history.

### LAND ACKNOWLEDGMENT

Our course meets on stolen Native land. I share this [statement](#) by Chief Dennis Coker that honors the Lenape land on which Winterthur and UD reside and to offer my respect for the Original People who survived many pandemics and who are still strong with us today in communities all around us. [Acknowledging](#) where we are is the **first step** in honoring Indigenous reality.

### I ASK THAT WE:

- Be curious and humble
- Embrace flexibility for different communication styles - with each other and with our guest speakers
- Be willing to learn something new, or to see something we thought we knew in a new light
- Look
- Listen
- Have fun

## BLOCK GOALS AND OBJECTIVES

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Geared toward objects majors and non-objects majors alike, the Inorganic Block covers the basics of the conservation of inorganic materials (metals, glass, ceramics), building upon core ethical principles and practical information developed over the preceding sequence of blocks.

### GOALS AND OBJECTIVES

The main objective of the Inorganic Materials Conservation Block is to introduce aspects of technology, manufacture, composition, degradation, conservation, societal impact, and significance of objects made of the following inorganic materials: metal, glass, and ceramic. While theoretical aspects of these topics will be shared through various lectures, demonstrations, discussions, and field trips, students will also apply this information in practical hands-on activities. These practicals will mostly relate to basic conservation techniques of inorganic materials.

During this block, the content of the coinciding lectures for ARTC 616 and ARTC 671, taught by WUDPAC faculty and visiting instructors, will be synchronized as best as possible with the block material being presented.

### BY THE END OF BLOCK, YOU WILL BE ABLE TO:

1. Recognize common methods of manufacture for metal, glass, and ceramic objects;
2. Have a basic understanding of the historical, geographic, and societal trends of metal, glass, and ceramic manufacture and recognize its human impact;
3. Demonstrate familiarity with common examination techniques used to study, document, and assess the condition of metal, glass, and ceramic objects;
4. Explain the primary causes of deterioration for metal, glass, and ceramic objects;
5. Convey and prioritize specific preservation needs for metal, glass, and ceramic objects, including ideal environmental parameters, proper storage conditions, and methods for handling;
6. Cite, and in some cases apply, common treatment techniques, materials, and decision-making processes for the care of metal, glass, and ceramic objects.

## INSTRUCTOR INFORMATION

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### MAIN INSTRUCTOR



**Lauren Fair**

she/her

[lfair@winterthur.org](mailto:lfair@winterthur.org)

work: (302) 888-4895; mobile: (717) 856-8312

Lauren is Objects Conservator, Lab Head, and Assistant Director of Conservation at Winterthur Museum, Garden & Library and Affiliated Associate Professor in the Winterthur/University of Delaware Program in Art Conservation. [Link to bio.](#)

### GUEST INSTRUCTORS (in order of appearance)



**Kate Cuffari**

she/her

[kcuffari@philamuseum.org](mailto:kcuffari@philamuseum.org)

Kate is Conservator of Decorative Arts and Sculpture at the Philadelphia Museum of Art. [Link to bio.](#)



**Adam Jenkins**

he/him

[spalted@hotmail.com](mailto:spalted@hotmail.com)

Adam is Objects Conservator and Owner of Adam Jenkins Conservation Services, LLC, in Philadelphia. [Link to bio.](#)



**Lawrence Welker III**

he/him

Lary is Artist and Co-Founder of Laran Bronze, Inc, in Chester, PA.

[Link to bio.](#)



**Dr. Rosie Grayburn**

she/her

Rosie is Scientist and Lab Head for Scientific Research and Analysis at Winterthur Museum, Garden & Library and Affiliated Associate Professor in the Winterthur/University of Delaware Program in Art Conservation. [Link to bio.](#)



**Vanessa Muros**

she/her

Vanessa is Director of the Experimental and Archaeological Sciences Laboratory at the Cotsen Institute of Archaeology at the University of California, Los Angeles. [Link to bio.](#)



**Ann Wagner**

she/her

Ann is Curator of Decorative Arts at Winterthur Museum, Garden & Library. [Link to bio.](#)



**Alison Chew**

she/her

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Alison is Materials Innovator at Nike, Inc. [Link to bio.](#)



**Leslie Grigsby**

she/her

[lgrigsby@winterthur.org](mailto:lgrigsby@winterthur.org)

Leslie is the Senior Curator of Ceramics and Glass at Winterthur Museum, Garden & Library.

[Link to bio.](#)



**Emily Brown**

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Emily is Conservator of Sculpture and Decorative Arts at the Ringling Museum of Art. [Link to bio.](#)



**Alexander Rosenberg**

he/him

Alexander is Artist and Glass Studio Director at Wheaton Arts in Millville, New Jersey. [Link to bio.](#)



**Phyllis Seidner-Vesely**

she/her

Phyllis is Associate Potter and Studio Manager at Wheaton Arts in Millville, New Jersey and Owner of Phyllis Seidner Pottery. [Link to bio.](#)



**Mary C. Mills**

she/her

Mary is Director of Exhibitions and Collections at Wheaton Arts in Millville, New Jersey and Historic Glass Specialist for AECOM. [Link to bio.](#)

## LEARNING RESOURCES

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### REQUIRED LEARNING MATERIALS

There are required readings/listenings/viewings for select days of the block, listed within each day's overview (see course modules). With the help of WUDPAC 2019 alumna Cassia Balogh, a larger bibliography for inorganic objects conservation, as well as [key reference folders](#), is also supplied. **Be sure to save these resources for future use!**

All required readings/listenings/viewings for the block will be provided digitally. You are asked to respect copyright issues and not distribute any parts of these resources to others without permission, while restricting your usage to this block and your own future conservation work.

### TECHNOLOGY

This course utilizes Canvas, UD's online learning management system, for all course activities and communication channels. All assignments will be posted through the Canvas course site unless otherwise directed. Information on how to use Canvas is available through the [Canvas Student Guide](#). Canvas can also be accessed via [MyUD](#).

For certain class lectures, where indicated, we will use Zoom. With enough advance warning, you can also decide to Zoom in for in-person lectures, should you need to.

The Zoom information for any block-related session is as follows:

- <https://udel.zoom.us/j/2471032428>
- Meeting ID: 247 103 2428

## ASSESSMENT

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In addition to active participation in class discussions, there will be several graded assignments and practical exercises throughout the block. All assignments are designed to test proficiency in the examination and/or treatment of inorganic objects, as well as to encourage creative thinking and problem solving. Time is allotted for students to complete assignments and practicals in class, but students should also set aside time to work independently outside of class.

**Late assignments will be docked a letter grade for each day they are overdue unless previous arrangements were made with the instructor.**

### ASSIGNMENTS AND GRADING

The final block grade will be calculated using the components listed in the table below.

Assignment	Due date	% of total
1. Documentation project	By 5pm on Feb. 16	40
2. Metal practical and lab notebook	By 5pm on Feb. 1	10
3. Ceramic and glass assembly / ceramic loss compensation practical and lab notebook	By 5pm on Feb. 16	20
4. Ceramic sherd ID	By Feb. 14	15
5. Active participation	Throughout	15

### Assignment 1: Documentation Project

Each student will choose an object on the first day of class for which to complete a condition report and treatment proposal. The object will be part of the Winterthur collection, the WUDPAC study collection, or the collection of an outside institution or private owner. The report should include description, fabrication technology, relevant historical information and cultural context, condition description, statement of significance, and proposal for treatment. A reference list following the most up-to-date guidelines of the Chicago Manual of Style should also be included. A detailed annotated report template serving as a rubric, as well as report examples will be provided. Reports are due by **5 pm on Friday, February 16**, uploaded to Canvas as a Word document.

### Assignment 2 and 3: Practicals and Lab Notebooks

Students will complete four hands-on practical assignments during the Inorganic Block, detailed below. Two lab notebooks total with photodocumentation and process notes detailing each activity are to be submitted by uploading to Canvas. Metal practical notebooks are due by **5pm on Thursday, February 1**; ceramic and glass practical notebooks are due by **5pm on Friday, February 16**. Any file format for these is acceptable.

#### #2. Metal practical

- Cleaning tests on metal study pieces

#### #3. Ceramic and glass practicals

- Glass assembly with epoxy
- Ceramic assembly with Paraloid B72
- Loss compensation on joined ceramic (filling and inpainting)

### Assignment 4: Ceramic Sherd ID

In the second week of the block, each student will choose a kit of ceramic sherds for which they must identify the type of ceramic body. Each sherd is numbered, and students will review the answer key with the instructor in the following week **on Wednesday, February 14**.

### Assignment 5: Active Participation

Throughout the block, there will be a variety of ways I hope to encourage active discussion. We will utilize the Canvas discussion board to spark class-time conversation, conduct a team-based learning activity, discuss readings in groups, visit sites on field trips, and hear from visiting lecturers as well as your fellow classmates. Be prepared to actively engage in the modalities with which you are most comfortable. For full marks in this category, **you must also make at least one appointment with me at some point during the block for a one-on-one check-in consultation**.

### GRADING SCALE

The overall grade for the Inorganic Block is calculated as described above. This grade will represent 25% of the total grade for ARTC 657. This percentage is based on the number of days spent in the block during the Spring Semester.

Grade	Interval
A	97 - 100
A-	93 - 96
B+	89 - 92
B	85 - 88

B-	81 - 84
C+	77 - 80
C	73 - 76
C-	69 - 72
D+	65 - 68
D-	57 - 60
F	Below 57

## UNIVERSITY POLICIES

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### HARASSMENT AND DISCRIMINATION

The University of Delaware works to promote an academic and work environment that is free from all forms of discrimination, including harassment. As a member of the community, your rights, resource and responsibilities are reflected in the non-discrimination and sexual misconduct policies. Please familiarize yourself with these policies at [www.udel.edu/oei](http://www.udel.edu/oei) . You can report any concerns to the University's Office of Equity & Inclusion, at 305 Hüllihen Hall, (302) 831-8063 or you can report anonymously through UD Police (302) 831-2222 or the EthicsPoint Compliance Hotline at [www1.udel.edu/compliance](http://www1.udel.edu/compliance). You can also report any violation of UD policy on harassment, discrimination, or abuse of any person at this site: [sites.udel.edu/sexualmisconduct/how-to-report/](http://sites.udel.edu/sexualmisconduct/how-to-report/)

### FACULTY STATEMENT OF DISCLOSURES OF INSTANCES OF SEXUAL MISCONDUCT

If, at any time during this course, I happen to be made aware that a student may have been the victim of sexual misconduct (including sexual harassment, sexual violence, domestic/dating violence, or stalking), I am obligated by federal law to inform the university's Title IX Coordinator. The university needs to know information about such incidents to, not only offer resources, but to ensure a safe campus environment. The Title IX Coordinator will decide if the incident should be examined further. If such a situation is disclosed to me in class, in a paper assignment, or in office hours, I promise to protect your privacy--I will not disclose the incident to anyone but the Title IX Coordinator.

For more information on Sexual Misconduct policies, where to get help, and reporting information, please refer to [www.udel.edu/sexualmisconduct](http://www.udel.edu/sexualmisconduct). At UD, we provide 24/7/365 crisis assistance and victim advocacy and counseling. Contact 302-831-1001 to get in touch with a sexual offense support advocate, as well as confidential and anonymous counseling services for other concerns.

### ACCOMODATIONS FOR STUDENTS WITH DISABILITIES

Any student who thinks he/she may need accommodation based on a disability should contact the Office of Disability Support Services (DSS) office as soon as possible. Students who have documentation of their need for accommodation should register via the SAM platform: [andes.accessiblelearning.com/UDEL/](http://andes.accessiblelearning.com/UDEL/). Reach DSS in the following ways: Phone: 302-831-4643, fax: 302-831-3261, [DSS website](http://www.udel.edu/dss). Email: [dsoffice@udel.edu](mailto:dsoffice@udel.edu) or visit at 240 Academy Street, Alison Hall Suite 130.

During COVID-19, Disability Support Services staff are available remotely. Please call 302-831-4643 during business hours (8-5 M-F) or email [dsoffice@udel.edu](mailto:dsoffice@udel.edu) for assistance.

## NON-DISCRIMINATION

The University of Delaware does not discriminate against any person on the basis of race, color, national origin, sex, gender identity or expression, sexual orientation, genetic information, marital status, disability, religion, age, veteran status or any other characteristic protected by applicable law in its employment, educational programs and activities, admissions policies, and scholarship and loan programs as required by Title IX of the Educational Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, and other applicable statutes and University policies. The University of Delaware also prohibits unlawful harassment including sexual harassment and sexual violence.

For inquiries or complaints related to non-discrimination policies, please contact: Office of Equity & Inclusion- [oei@udel.edu](mailto:oei@udel.edu), 305 Hullihen Hall Newark, DE 19716 (302) 831-8063

For complaints related to Section 504 of the Rehabilitation Act of 1973 and/or the Americans with Disabilities Act, please contact: Office of Disability Support Services, [dssoffice@udel.edu](mailto:dssoffice@udel.edu), Alison Hall, Suite 130, Newark, DE 19716 (302) 831-4643 OR contact the [U.S. Department of Education - Office for Civil Rights](#).

## ACADEMIC HONESTY

It should be obvious that individual assignments should be completed individually. Unless explicitly noted by me in writing, all work submitted to fulfill course requirements must be original work prepared solely for this course and it must have been completed individually.

Any quotations or ideas that are taken from material that you have not created or authored must be properly cited. Failure to cite the creator/author of a quotation/idea constitutes plagiarism and is punishable under the University of Delaware's Code of Conduct.

*Important Note:* I will pursue and punish any and all violations of the University of Delaware's Code of Conduct to the fullest extent possible. I am required by the University to report any student that engages in activity contrary to those acceptable under the University guidelines.

Please ensure that you read the "[Code of Conduct](#)" detailed in the student handbook.

## SCHEDULE

key: live lecture-discussion / zoom / free time-office hours / hands-on / field trip

Week1	Monday JAN 22	Tuesday JAN 23	Wednesday JAN 24	Thursday JAN 25	Friday JAN 26
9-12	free day	introduction to inorganic block looking at metal objects, documentation  pick objects, time to examine, create necessary housings, get files, etc.	technology and manufacture of metal objects with Kate Cuffari and Adam Jenkins	ARTC 671	ARTC 616  corrosion chemistry with Rosie
12-1		<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>
1-5		ARTC 616  1:30 metal structures, phase diagrams, and metallography with Alison Chew	field trip to Laran Bronze Foundry and Studio  (no student-choice lecture)	free	electrochemistry lab with Rosie
HW		<i>review canvas site for first day of block</i>	<i>videos for Kate and Adam's lecture</i>		<i>watch world history of metals lecture and post to discussion board</i>

key: live lecture-discussion / zoom / free time-office hours / hands-on / field trip

Week2	Monday JAN 29	Tuesday JAN 30	Wednesday JAN 31	Thursday FEB 1	Friday FEB 2
9-12	<p>discussion: world history of metals</p> <p>10:30-12:30* archaeological metals with Vanessa Muros</p>	<p>lecture and discussion: metal corrosion and treatment / silver, copper, iron</p>	<p>modern metals, outliers, metals in other contexts with Adam Jenkins</p>	<p>ARTC 671</p> <p>X-radiography with Lauren</p>	<p>lecture: world history of ceramics and body ID</p> <p>distribute sherd ID kits</p>
12-1	<p><i>lunch break</i></p> <p><i>*starts at 12:30 today</i></p>	<p><i>lunch break</i></p>	<p><i>lunch break</i></p> <p>12pm Student Choice, Zoom: Lydia Beerkens on kinetic art (Kacey Green)</p>	<p><i>lunch break</i></p>	<p><i>lunch break</i></p>
1-5	<p>2-4pm tour Winterthur metals with Ann Wagner</p> <p>free</p>	<p>metal cleaning practical</p>	<p>tour Winterthur gardens with Adam and Lauren</p> <p>free</p>	<p>corrosion inhibitors and metal coatings with Rosie and Alison</p> <p>metals wrap-up: what questions remain?</p>	<p>looking at ceramics with Leslie Grigsby in Ceramics and Glass Study</p> <p>free</p>
HW	<p><i>copper, silver, iron treatment readings and post to discussion board</i></p>		<p><i>metal cleaning practical and notebook due by Feb. 1</i></p>		<p><i>sherd IDs due Feb. 14</i></p> <p><i>watch technology and manufacture of ceramics lecture and post to discussion board</i></p>

key: live lecture-discussion / zoom / free time-office hours / hands-on / field trip

Week3	Monday FEB 5	Tuesday FEB 6	Wednesday FEB 7	Thursday FEB 8	Friday FEB 9
9-12	<p>discussion: technology and manufacture of ceramics</p> <p>history of glass manufacture with Emily Brown</p>	<p>ARTC 616</p> <p>glass chemistry and deterioration with Guus Verhaar</p>	<p>lecture: glass and ceramics assembly</p> <p>glass and ceramics assembly practical</p>	<p>ARTC 671</p>	<p>loss compensation of ceramics and glass</p>
12-1	<p><i>lunch break</i></p>	<p><i>lunch break</i></p>	<p><i>lunch break</i></p> <p>12pm Student Choice: Jane Henderson on preventive conservation, Zoom (Gianna Puzzo)</p>	<p><i>lunch break</i></p>	<p><i>lunch break</i></p>
1-5	<p>field trip to Wheaton Arts</p>	<p>deterioration of glass and ceramics</p> <p>free</p>	<p>assembly practical, continued</p>	<p>free</p>	<p>loss compensation of ceramics (filling) practical</p>
HW			<p><i>ceramic assembly must be completed by Feb. 9</i></p> <p><i>glass assembly and notebook due Feb. 15</i></p>	<p><i>(complete ceramic assembly for Friday)</i></p>	<p><i>cleaning glass and ceramics readings for Monday</i></p>

key: live lecture-discussion / zoom / free time-office hours / hands-on / field trip

Week4	Monday FEB 12	Tuesday FEB 13	Wednesday FEB 14	Thursday FEB 15	Friday FEB 16
9-12	cleaning glass and ceramics	ARTC 616 stone and clay chemistry with Chandra Reedy	few slides on inpainting loss compensation of ceramics (inpainting) practical sherd ID kit review	ARTC 671	ceramics and glass wrap-up: what questions remain? main block takeaways lab cleanup
12-1	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>
1-5	team-based learning activity free	looking at glass with Mary Cheek Mills free	practical, continued sherd ID kit review free 4pm Student Choice, Rotunda: Dr. Ed Jolie on organic materials (Riley Thomas)	open lab time	free
HW			<i>ceramics and glass notebooks due by Feb. 15</i>	<i>documentation project report due by Feb. 16</i>	