

**CORE CONSERVATION COURSES (FINH-GA.2101-2109)****MATERIAL SCIENCE OF ART & ARCHAEOLOGY I**

FINH-GA.2101.001 [#reg. code]

(Lecture, 3 points)

Instructor

Hours to be arranged

Location TBD

The course extends over two terms and is related to Technology and Structure of Works of Art I and II. Emphasis during this term is on problems related to the study and conservation of organic materials found in art and archaeology from ancient to contemporary periods. The preparation, manufacture, and identification of the materials used in the construction and conservation of works of art are studied, as are mechanisms of degradation and the physicochemical aspects of conservation treatments.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for first-year conservation students.

MATERIAL SCIENCE OF ART & ARCHAEOLOGY II

FINH-GA.2102.001 [#reg. code]

(Lecture, 3 points)

Instructor

Hours to be arranged

Location TBD

The course extends over two terms and is related to Technology and Structure of Works of Art I and II. Emphasis during this term is on the chemistry and physics of inorganic materials found in art and archaeological objects from ancient to contemporary periods. The preparation, manufacture, and identification of the materials used in the construction and conservation of works of art are studied, as are mechanisms of degradation and the physicochemical aspects of conservation treatments. Each student is required to complete a laboratory assignment with a related report and an oral presentation.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for first-year conservation students.

TECHNOLOGY & STRUCTURE OF WORKS OF ART I: ORGANIC MATERIALS

FINH-GA.2103.001 [#reg. code]

(Lecture, 3 points)

Conservation Center faculty and consultants

Coordinator:

Hours to be arranged

Location TBD

The course introduces first-year conservation students to organic materials and the methods used to produce works of art, archaeological and ethnographic objects, and other historical artifacts, as well as to aspects of their deterioration and treatment histories. Emphasis is placed on the accurate identification of

materials and description of techniques, the identification and evaluation of subsequent alterations, and an understanding of treatment history. As much as is practical and possible, students learn by looking at and examining objects directly. Each student is required to give three oral or written reports per semester on objects in the study collection and at The Metropolitan Museum of Art. In addition, grading will be based on a final exam. Classes may be a combination of lecture and laboratory. In order to accommodate field trips or laboratory exercises, some sessions may last longer than two hours and are arranged by the instructor with the class at the beginning of the term.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for first-year conservation students.

TECHNOLOGY & STRUCTURE OF WORKS OF ART II: INORGANIC MATERIALS

FINH-GA.2104.001 [#reg. code]

(Lecture, 3 points)

Conservation Center faculty and consultants

Coordinator:

Hours to be arranged

Location TBD

The course introduces first-year conservation students to inorganic materials and the methods used to produce works of art, archaeological and ethnographic objects, and other historical artifacts, as well as to aspects of their deterioration and treatment histories. Emphasis is placed on the accurate identification of materials and description of techniques, the identification and evaluation of subsequent alterations, and an understanding of treatment history. As much as is practical and possible, students learn by looking at and examining objects directly. Each student is required to give three oral reports per semester on objects in the study collection and at The Metropolitan Museum of Art. Classes may be a combination of lecture and laboratory. In order to accommodate field trips or laboratory exercises, some sessions may last longer than two hours and are arranged by the instructor with the class at the beginning of the term.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for first-year conservation students.

INSTRUMENTAL ANALYSIS I

FINH-GA.2105.001 [#reg. code]

(Lecture, 3 points)

Instructor

Hours to be arranged

Location TBD

The course provides an introduction to instrumental methods of examination and analysis that find frequent use in the field of conservation. As many of these methods invoke the use of x-rays, a significant part of the course is devoted to an understanding of their properties and applications. Methods of x-ray analysis, including radiography, diffraction, and spectrometry, are reviewed and accompanied by hands-on demonstrations and laboratory exercises aimed toward developing student capability for independent

use. Equipment housed in both the Conservation Center and The Metropolitan Museum of Art is utilized and made available to the students. Proficiency is gained through analytical projects, homework assignments, and classroom discussion.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for second-year conservation students.

INSTRUMENTAL ANALYSIS II

FINH-GA.2106.001 [#reg. code]

(Lecture, 3 points)

Instructor

Hours to be arranged

Location TBD

The course is a continuation of Instrumental Analysis I and provides a fundamental background for the understanding of the increasing number of analytical methods that find application in the field of conservation. The course focuses on methods of instrumental analysis used for the study of organic materials. Lectures on the specific techniques are accompanied by hands-on demonstrations and laboratory exercises aimed toward developing student capability for independent use.

Enrollment is limited to conservation students and to other qualified students with the permission of the faculty of the Conservation Center. This course is required for second-year conservation students.

PRINCIPLES OF CONSERVATION: TREATMENT METHODOLOGIES

FINH-GA.2107.001 [#reg. code]

(Studio, 3 points)

Conservation Center faculty and consultants

Coordinator:

Hours to be arranged

Location TBD

This course provides an introduction to current practices in conservation, including examination and documentation, adhesion, consolidation, structural support, cleaning, and compensation. Methodologies for approaching examinations and treatments and principles of ethics are discussed. These topics are presented as they relate to divergent specialties of conservation, including paintings, paper, and objects.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for first-year conservation students.

PREVENTIVE CONSERVATION

FINH-GA.2108.001 [#reg. code]

(Lecture, 3 points)

Instructor

Hours to be arranged

Location TBD

The course introduces students to all relevant issues of the museum environment: temperature and relative humidity, gaseous and particulate pollutants, light, and biological attack. The essential role of these parameters in the process of deterioration of cultural property is investigated. Guidelines for the proper storage, display, and transport of art objects are reviewed. Practical exercises include environmental monitoring of various sites and the evaluation of preventive conservation strategies. Cost-benefit analysis and risk assessment, emergency preparedness, and disaster response are exercised on selected case studies. Grading is based on an assigned laboratory experiment, a written report and an oral presentation. Students are also requested to participate in a practical exercise on show case refurbishment.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for second-year conservation students.

TECHNOLOGY & STRUCTURE OF WORKS OF ART III: TIME-BASED MEDIA

FINH-GA.2109.001 [#reg. code]

(Lecture, 3 points)

Conservation Center faculty and consultants

Coordinator:

Hours to be arranged

Location TBD

This course will introduce the technology and media that constitute various categories of time-based media (TBM) art, in both theory and practice. A historical overview of the development of TBM art will provide an introduction to the conservation challenges associated with media categories such as film, slide, video, light, sound, kinetic, interactive installations, as well as born-digital, software-based, and internet art. The issues related to the acquisition, examination, documentation, exhibition, installation and the conservation of TBM will be discussed through case studies. Conservation concerns will be identified in the context of media and equipment obsolescence, to illustrate the consequences of rapid technical changes in components used by artists in the creation of these works. Emphasis will be put on the decision-making processes based on ethical standards in this new and quickly evolving discipline. The main resources and research projects addressing TBM art preservation will provide the conceptual framework for future professionals entering this highly collaborative field.

The course will follow a lecture format supplemented by optional lab visits. The individual classes will be taught by leading scholars, practitioners, conservators, curators, archivists, computer scientists, artists, and engineers from within the greater New York City area and coordinated by Christine Frohnert, consultant and conservator in TBM art, and TBM Program Coordinator. Students from various backgrounds, including art-history, art conservation, engineering, art management, digital humanities and computer science are welcome.

Enrollment is limited to conservation students and to other qualified students with the permission of the faculty of the Conservation Center. Enrollment is limited to # students. Art history MA and PhD students must register for FINH-GA.2045.00X for four points. Permission of the instructor must be received before registering for this course.

**INTRODUCTION TO IMAGE-BASED DOCUMENTATION FOR CONSERVATION**

FINH-GA.2110.001 [#reg. code]

(Studio, 3 points)

Instructor:

Hours to be arranged

Location TBD

This course provides a foundation in the theory and practice of image-based documentation, focusing primarily on techniques which use DSLR cameras. Taught as a combination of lectures and hands-on sessions, weekly sessions will cover the following topics: documentation theory, standard visible light imaging, multiband imaging, reflectance transformation imaging, photogrammetry, micro-imaging, videography and data management. Deliverables will include a mixture of small technique-specific assignments and a broader outreach project.

Enrollment is limited to conservation students and other qualified students with the permission of the faculty of the Conservation Center. This course is required for first-year conservation students.

ADVANCED ELECTIVES IN PAINTINGS CONSERVATION (FINH-GA.2201)**SEMINAR & LABORATORY IN PAINTINGS CONSERVATION**

FINH-GA.2201.VAR [#reg. code]

(Studio, 3 points)

Instructor

Hours to be arranged

Location TBD

TOPICS:**EASEL PAINTINGS I: THE KRESS CLASS TECHNICAL EXAMINATION/TREATMENT**

In the course of the semester, each student completes the consolidation, cleaning, filling, retouching, and varnishing of an Old Master painting drawn from Samuel H. Kress Collections in museums and universities across the United States. Examination, documentation of condition, and comparative study of other works by the same artist and school accompany the treatment. The student must provide a full report, including photographic records, other examination findings, and analytical results as indicated. The making of cross sections and their analysis is incorporated into the course in addition to imaging with X-ray radiography and Infrared Reflectography. Approaches to cleaning, compensation, and issues in connoisseurship relating to the particular painting are emphasized.

Students must have satisfactorily completed Technology and Structure of Works of Art I. Priority is given to students intending to specialize in paintings conservation, and enrollment is limited to advanced students in conservation.

Students must have the permission of the instructor before registering for this course.

EASEL PAINTINGS II: PAINTED SURFACES ON SOLID SUPPORTS



This course will focus on treatments of damaged painted surfaces and will consider both canvas and solid supports including wood, metal, plastic, glass, and other substrates. A large part of the semester will be dedicated to consolidating and securing unstable paint films. Other topics covered will include surface cleaning, tear repair, and humidification treatments. In the course of the semester, students will gain familiarity with both historical and modern conservation materials, as well as related aesthetic and theoretical issues. This course is required of paintings conservation students, but open to students of all specialties.

Students must have satisfactorily completed Technology and Structure of Works of Art I. Priority is given to students intending to specialize in paintings conservation, and enrollment is limited. Students must have the permission of the instructor before registering for this course.

EASEL PAINTINGS III: STRUCTURAL TREATMENT OF PAINTINGS ON CANVAS

This course addresses various approaches to the conservation problems encountered with paintings on fabric and focuses primarily on treatments for the support itself, although consolidation of the preparation and paint layers, presented in Easel Paintings II, will be readdressed. The topics include methods for flattening distortions and buckling, tear repair, making inserts, strip lining and other types of edge reinforcement, the application of protective facing, stretching a lining canvas, removal and remounting of paintings on their stretchers or strainers, alternatives to relining.

Students must have satisfactorily completed Technology and Structure of Works of Art I. Priority is given to students intending to specialize in paintings conservation, and enrollment is limited. Students must have the permission of the instructor before registering for this course.

EXAMINATION & CONSERVATION OF MODERN & CONTEMPORARY PAINTINGS I

The conservation of modern and contemporary paintings requires a set of skills that are different from those learned in studying Old Master pictures. Students in this course will: learn how to examine 20th/21st-century paintings and to write condition reports and treatment proposals; recognize the problems that are common to this period; become familiar with the materials used to make these works and the range of options to consolidate, clean, fill and retouch them; understand the roles of the living artist in conservation and of the conservator in contemporary art; and learn about special problems such as color field paintings, oversized pictures, raw canvas, de-varnishing and condition problems arising from inherent vice and frequent handling. The students will visit private and museum conservation labs specializing in modern art and one of the major auction houses prior to a sale. Each student will be assigned a painting for treatment within the semester. Students will be required to complete the treatment of a painting, submit a condition and treatment report for the assigned artwork as well as a condition report for an artwork at auction. The class is held in the studio of Modern Art Conservation located in Chelsea.

Students must have satisfactorily completed Technology and Structure of Works of Art I, Principles of Conservation, and Easel Paintings I. Priority is given to those students intending to specialize in paintings conservation. Enrollment



is limited; students must have the permission of the instructor before registering.

EXAMINATION & CONSERVATION OF MODERN & CONTEMPORARY PAINTINGS II

The conservation of modern and contemporary paintings requires a set of skills that are different from those learned in studying Old Master pictures. Students in this course will: learn how to examine 20th/21st-century paintings and to write condition reports and treatment proposals; recognize the problems that are common to this period; become familiar with the materials used to make these works and the range of options to consolidate, clean, fill and retouch them; understand the roles of the living artist in conservation and of the conservator in contemporary art; and learn about special problems such as color field paintings, oversized pictures, raw canvas, de-varnishing and condition problems arising from inherent vice and frequent handling. The students will visit private and museum conservation labs specializing in modern art and one of the major auction houses prior to a sale. Each student will be assigned a painting for treatment within the semester. Students will be required to complete the treatment of a painting, submit a condition and treatment report for the assigned artwork as well as a condition report for an artwork at auction. The class will be held in the studio of Modern Art Conservation located in Chelsea.

Students must have satisfactorily completed Technology and Structure of Works of Art I, Principles of Conservation, and Easel Paintings I. Priority is given to those students intending to specialize in paintings conservation. Enrollment is limited; students must have the permission of the instructor before registering.

MODERN & CONTEMPORARY PAINTED SURFACES

The conservation of modern and contemporary art works requires a set of skills that are interdisciplinary and often different from those learned in studying more traditional works. Students in this course will: learn how to examine 20th/21st-century painted works of art; write condition reports and treatment proposals; recognize the problems that are common to this period; become familiar with the materials used to make these works and the range of options to consolidate, clean, fill, and retouch them; understand the roles of the living artist in conservation and of the conservator in contemporary art; and learn about special problems encountered in mixed media works. In addition to class projects, each student will be assigned a painting or painted object for treatment within the semester.

Students must have satisfactorily completed Technology and Structure of Works of Art I and at least one advanced treatment course. Priority is given to those students intending to specialize in conservation of modern and contemporary art. Enrollment is limited to three; students must have the permission of the instructor before registering.

ADVANCED ELECTIVES IN OBJECTS CONSERVATION (FINH-GA.2210)

SEMINAR & LABORATORY IN OBJECTS CONSERVATION

FINH-GA.2210.VAR [#reg. code]

(Studio, 3 points)



Instructor
Hours to be arranged
Location TBD

TOPICS:

APPLYING VALUES-BASED DECISION-MAKING IN OBJECTS CONSERVATION

Works of art and artifacts are assigned values—esthetic, cultural, spiritual, personal narrative, political, monetary—that shift in significance according to context. And yet conservation decision-making has often been carried out as if its activities are neutral, fixed, and generally applicable as long as the modern tenets of conservation are followed. This course explores the values we attach to cultural heritage, how they are assessed, and how they impact our decisions in documentation, analysis, handling and display, and treatment. Each week students are assigned readings for discussion that investigate significance and values in different types of objects. In addition, each student receives a work of art or artifact for examination and conservation to apply values-based decision-making in the formulation and execution of a treatment.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION OF ASIAN & ARCHAEOLOGICAL OBJECTS

This course will address the conservation treatment of Asian and archaeological objects, with a focus on South, Southeast, and East Asia, with examples from other areas also included. Issues affecting archaeological objects from different burial environments will be discussed. The course will also cover contemporaneous works that survived above ground in shrines, temples, or other contexts. Materials covered include metals (particularly gold, silver, and copper alloys), stone, ceramics, vitreous materials, wood, and other organic materials.

Discussions of case studies and critical review of past or ongoing treatments will be included. The history of conservation practice as it relates to Asian and archaeological materials, as well as discussion of the materials favored and the distinctive technological choices made by Asian artists and craftsmen and how these choices have affected the history of the objects and ultimately influence their conservation, will be integrated into these discussions. Materials and methods of conservation, covering topics such as adhesives and consolidants, corrosion inhibitors, cleaning, structural issues, matte surfaces, biological attack, etc., and traditional methods employed in Asian cultures will also be covered.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION OF GLASS

This course will introduce the student to the conservation of glass, including vessel glass, objects, and stained glass windows. Topics will include the manufacture, deterioration, and conservation of glass



artifacts. Classes will meet at The Metropolitan Museum of Art and the Conservation Center. The class will focus on practical work complemented with literature reviews and discussions. Each student will complete several exercises that will provide a basic introduction to the examination, documentation, and treatment of glass, including cleaning, surface consolidation, repair, and restoration. Appropriate treatments for archaeological and historic glass will be considered. Students will be expected to take part in class discussions and to present orally their observations on assigned readings and the results of their examinations and treatments of assigned objects. It is expected that students will complete one or two object treatments by the end of the semester.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION OF MODERN & CONTEMPORARY SCULPTURE

This course combines hands-on conservation with laboratory exercises, research, and lectures on conserving modern and contemporary sculpture. The course has an applied orientation, and rotates with a seminar on issues in conserving modern and contemporary art. The range of works includes plastics, modern paints, modern alloys, time based media, installations, and ephemera. Potential projects include surveys, research, and treatment. Course projects may be drawn from collections such as Dia Art Foundation, Museum of Modern Art, and public art agencies.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION OF WOODEN ARTIFACTS

Students will examine the structure of wood and its physical characteristics, and learn to identify specific wood species commonly used in European and American sculpture and furniture. Mechanisms of physical and biological deterioration will be covered, including light damage, structural damage caused by fluctuations in RH, insect and fungal damage, and structural damage caused by misuse, over-use, and accident. The history of woodworking and furniture, clear finishes and fasteners used in wood furniture and sculpture will be reviewed. Students will learn examination and documentation techniques for wood furniture and sculpture, including construction and decoration terminology. Preventive conservation methods, including light and climate modification, integrated pest management (IPM), and proper housekeeping and object handling will be emphasized. Historic and contemporary materials and techniques of wood conservation treatment will be covered, including: anoxia treatments of insect infestations; surface cleaning of both finished and unfinished wood; reintegration or restoration of light-bleached surfaces and damaged or degraded finishes; structural repair of damaged solid wood, plywood and veneer; and replacement of loss. Emphasis will be placed on reversible, minimally intrusive treatment techniques, and decision-making that is cognizant of the mission, interpretive goals, and condition of the specific museum, historic-house, or private-collection setting for the object. Each student will receive an



object for examination, documentation and treatment during the course of the semester.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

CONSERVATION STRATEGIES FOR NATURAL SCIENCE COLLECTIONS

This course will introduce students to a general overview of considerations and methods in the conservation of the diverse materials found in natural science collections. Students will complete 2-3 major independent projects in which they will be expected to complete all aspects of treatment, including examination, analysis, and documentation. Students will also complete 1-2 minor independent or group projects. Weekly sessions will include lecture(s) and hands-on components with regular in-class review of project progress and discussion of required readings. One or more field trips related to course material may also be scheduled. Topics covered will include mammalian and ornithological taxidermy; invertebrate collections; skins, hides and other animal materials; bone and osteological mounts; paleontological specimens; fluid collections; and geological materials. Each student will present a final talk (10-15 minutes) on their work throughout the course.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION TREATMENT OF DECORATIVE & FINE ART INORGANIC OBJECTS

This course is designed to provide students with an introduction to the conservation of decorative and fine art objects created from inorganic materials. Emphasis is placed on the development of visual, written and critical thinking skills used in assessing and documenting condition and treatment problems. Each student examines a variety of objects, learning proper documentation and examination techniques, and then carries out treatment of those objects. The object materials may include ceramics, stone, glass and metals. In addition to object stabilization and treatment, environmental concerns, storage mounts and packing strategies, as well as appropriate ethics and standards for decorative and fine art objects are discussed. Where possible, objects in New York collections are examined.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION TREATMENT OF INORGANIC ARCHAEOLOGICAL & ETHNOGRAPHIC OBJECTS

This course is designed to provide students with an introduction to the conservation of archaeological and ethnographic objects created from inorganic materials. Emphasis is placed on the acquisition of visual skills used in assessing condition and treatment problems. Each student examines a variety of objects,

learning proper documentation and examination techniques, and then carries out treatment of those objects. The object materials may include ceramics, stone, glass and metals. In addition to object stabilization and treatment, environmental concerns, storage mounts and packing strategies, as well as appropriate ethics and standards for archaeological and ethnographic objects are discussed. Where possible, artifacts in New York collections are examined.

Enrollment is limited to advanced students in conservation with the permission of the instructors required before registration.

THE CONSERVATION TREATMENT OF METAL OBJECTS

This course is designed to provide students with an introduction to the conservation of decorative, fine art, and archaeological objects created from metals. Emphasis is placed on the development of visual, written, and critical thinking skills used in assessing and documenting condition and treatment problems. Each student examines a variety of objects, learning proper documentation and examination techniques, and then carries out treatment of those objects. In addition to object stabilization and treatment, environmental concerns, storage mounts and packing strategies, as well as appropriate ethics and standards for objects are discussed.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION TREATMENT OF ORGANIC & COMPOSITE MATERIALS

This course is designed to provide students with an introduction to the conservation of objects from archaeological or ethnographical context. These pose particular challenges both technical and ethical. They can be composed of a wide variety of materials, often organic but also inorganic, including traditional as well as trade and modern materials. The complexity of mixed materials will require critical thinking and discussion of the broader context of those composite objects. Each student will examine, document and carry out treatment on two or three objects. Emphasis will be placed on acquisition of the investigative, documentation, and treatment skills needed to approach conservation of composite and complex objects. Various ethical and practical issues raised in the conservation of objects from indigenous and world cultures will be presented and discussed.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION TREATMENT OF STONE SCULPTURE

Students receive advanced training in the examination and treatment of stone sculpture. Beginning with rock and mineral identification, the course continues with a review of the common forms of stone deterioration with the goal of enabling students to understand probable causes of decay. Emphasis is placed as well on honing treatment skills such as choice of methodology and materials, cleaning,



consolidation, fills, and retouching. Each student is assigned a sculpture and is expected to complete all aspects of its treatment, including examination, analysis, and documentation. In addition, there is one group project for the class to complete.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

FUNCTION IN CONSERVATION: EXAMINATION & TREATMENT OF UTILITARIAN OBJECTS

The course introduces students to the conservation of functional design objects. Students will learn about the preservation concerns through the condition assessment, documentation, research and treatment of design objects. Preventative conservation will also be explored through recommendations for exhibition, storage, and shipping. Class time will include instructor lectures, field trips, laboratory treatment time, and guest lectures. Techniques taught/demonstrated in class will reflect the methods of manufacture and condition of the chosen objects. Student evaluation will be based upon research and object treatments, and a formal presentation.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

INTRODUCTION TO OBJECTS CONSERVATION

This course provides students with an introduction to the skills necessary for the examination and treatment of three-dimensional works of art. Through laboratory assignments, students will acquire experience with many of the fundamental skills of the field, including cleaning, reversal of restorations, adhesion, consolidation, assembly of artifacts, and compensation for loss. The examination of a variety of objects and written documentation will be used to acquire the visual and written skills needed to assess, discuss, and document condition and treatment problems. The importance of conservation ethics and aesthetics in formulating treatment protocols will be discussed. In addition to object stabilization and treatment, environmental concerns, storage mounts, and packing strategies will be addressed.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

INTRODUCTION TO TEXTILES CONSERVATION

The course is intended as a broad introduction to the field and emphasizes preservation strategies. Objects from the collection of the Cooper-Hewitt are used to discuss topics including examination and documentation, fibers and dyes, environmental considerations, humidification, cleaning, bleaching, compensation for loss, exhibition installation issues and techniques, storage systems and mounts, and the use of specialized tools and equipment. Each student is asked to complete a research paper and a preservation project. Guest lecturers and visits to other laboratories are included.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

ISSUES IN MARBLE CLEANING

The collections of the Metropolitan Museum of Art will be used to highlight specific issues in the cleaning of marble sculpture. This is a hands-on treatment seminar. Each student will be given a work from the Museum's collection for examination and conservation with the expectation that treatment will be completed by semester's end.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

METALWORKING IN ANTIQUITY

The examination of cupreous and precious metalwork from the ancient Mediterranean world, East Asia, and South America will be the subject of this seminar-laboratory. The primary focus will be manufacture and materials, but several sessions will be devoted to assessing condition and recognizing corrosion products. The format will combine lectures and laboratory work, with the latter to include optical examination, X-ray radiography, X-ray diffraction, metallography, and elemental analysis. As a group the class will carry out replications of an ancient manufacturing technique. Students will orally present their observations in class and submit written reports describing the results of their examinations of assigned works, and together will examine in-depth a Chinese *ding* vessel in the Conservation Center Collection and write a short paper of scholarly quality on their findings.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

MODERN MATERIALS & MEDIA IN CONTEMPORARY ART

The preservation of artworks containing modern materials and technology-based components is of increasing concern to the art conservation profession. Challenges are posed by the preservation of the works of art themselves, their artistic intent and due to the artworks very specific relationship to time, space and concept. The course will offer lectures introducing modern materials and technology-based media such as Kinetic, Light-Kinetic and Installation Art. In addition, each student is assigned an object for examination, research, treatment and documentation. Course projects will be selected based on the individual students' interest. Students must have satisfactorily completed Technology and Structure of Works of Art and Principles of Conservation. Priority is given to those students intending to specialize in modern and contemporary art conservation.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

POLYCHROMY & MONOCHROMY: EXAMINATION & TREATMENT OF SCULPTURE

The course introduces students to the examination, preservation, and treatment of painted sculpture in various media such as wood, terracotta, and plaster. Examination methods focus on materials identification, x-ray radiography, stratigraphic paint analysis, and cross-section analysis. Each student will be assigned at least one example from an area collection, and will complete an examination and treatment in the course of the semester. Students gain experience in treating deterioration problems commonly encountered in the substrate material and learn the central roles of ethics and aesthetics in determining the extent of treatment. Techniques taught in the course include methods for adhesion and consolidation of support and decorative layers, and compensation for different kinds of loss. The importance of condition assessments and proper documentation are stressed. Preventive conservation is also reviewed, including environmental risks and requirements for exhibition, storage, and shipping.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

POLYMERS, FIBERS, YARNS, AND WEAVE STRUCTURES IN FABRICS

This course investigates textile fibers by analyzing their polymer structure, how they are used in woven and non-woven structures, and how they deteriorate. Fabrics dating from antiquity to modern times will be considered. Natural, regenerated, and synthetic fibers are found in many types of objects such as mummy wrappings, Japanese paper, painting canvases, and 1970s ultra-suede dresses. The chemical and physical nature of individual fiber types will be studied at the polymer level with an understanding of the role their individual chemistry plays in specific deterioration pathways. Methods for fiber identification will be practiced with a strong focus on polarized light microscopy, with corroboration by chemical solubility. Weekly fiber unknowns will be assigned. A review of weave structures on fabric samples will allow students to practice condition report writing with proper descriptions employing accepted vocabulary. Using condition assessment and pre-testing (pH, color bleed, fiber ID) as a guide, the challenges of treating these fragile textiles (pros and cons) will be discussed, with some lab practice using textile conservation stitching techniques and standard wet-cleaning procedures. Each student will be assigned a fiber-based object (their choice of either a flat textile or constructed garment) for their special project. The final report on that object will contain images of the object, photomicrographs of fibers, compilation of the pre-testing, research into treatment case studies, comparable objects within museum collections, and a treatment proposal. Depending on the complexity of the selected object and the interest of the student, a treatment can be considered.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

PRACTICAL PROBLEMS OF PRESERVATION: CONSERVATION OF ORGANIC ANTHROPOLOGICAL MATERIALS



The course is designed to provide students with an introduction to the conservation of anthropological objects created from organic materials. Each student will select two to three objects for examination and treatment. Relevant conservation materials and techniques are reviewed. General principles and problems pertaining to the conservation of ethnographic and archaeological material are discussed with emphasis on the original appearance and function of the objects and how changes in their condition coupled with our aesthetic perceptions influence their conservation. Artifacts in New York collections comparable to those being treated are examined by the class where possible.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

PRACTICAL PROBLEMS OF PRESERVATION: CONSERVATION OF ORGANIC DECORATIVE OBJECTS

The course is designed to provide students with an introduction to the technology and conservation of decorative objects created from organic materials, with an emphasis on ivory, bone, horn, tortoiseshell, and hair. Each student will be assigned two to three objects for examination and/or treatment. The relevant chemistry, methods of identification, material history and facture of these related materials, as well as their appropriate conservation, are reviewed. Themes of the course include the challenges of treating composite objects made from environmentally sensitive materials; the original appearance and function of the objects; and how changes in their condition coupled with our aesthetic perceptions influence their conservation. Artifacts in New York collections comparable to those being treated are examined by the class where possible.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

REASSEMBLY OF LARGE-SCALE OBJECTS OF TERRA COTTA & STONE

The reassembly of fragments of large-scale objects in terra cotta and stone requires an in-depth understanding of the properties and conditions of the materials of construction as well as an equally in-depth understanding of the materials and methods of conservation. An additional challenge inherent with large-scale objects is their mass and the associated requirement of creating stable constructions during the process of reassembly. This course makes relationships between theory and practice by exploring how to think about and trial materials and methods as well perform reassembly and associated activities on objects and object surrogates.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.



ADVANCED ELECTIVES IN PAPER, BOOK, & PHOTOGRAPH CONSERVATION

(FINH-GA.2240)

SEMINAR & LABORATORY IN PAPER, BOOK, & PHOTO CONSERVATION

FINH-GA.2240.VAR [#reg. code]

(Studio, 3 points)

Instructor

Hours to be arranged

Location TBD

TOPICS:

ADVANCED TOPICS IN RARE BOOK CONSERVATION

The student will complete a project related to either a single rare book or manuscript, or group of related works, to investigate a special research topic through treatment and possibly analysis, or to explore a treatment strategy for a particular category of bound materials. Consideration will be given to traditional approaches, setting goals in tandem with other partners in the library, and strategies for access by readers. A treatment project or investigation will be completed in the course of the semester.

Enrollment is limited to advanced students in conservation following the library and archive track with the permission of the instructor required before registration. Students must have satisfactorily completed the summer History of Book Structures Practicum, Major Topics in Rare Book Conservation, and The Conservation Treatment of Prints & Drawings I and II.

APPLIED CONSERVATION BOOK BINDING STRUCTURES

This course is intended for students with a strong interest in the conservation of books and bindings, and will focus on the role of re-binding as a conservation treatment and a mechanism for preservation and access. Students will create a series of binding models that are based on historical forms, but which incorporate modifications designed to accommodate the vulnerabilities of fragile or deteriorated text blocks. The goal of the course is a deeper understanding of how to engineer a new conservation binding using the broad range of structural variations possible in features such as sewing, board attachment, board shaping, endleaf construction, and spine lining. Direct assessment of the models created in relation to damaged books and bindings, combined with discussion of assigned readings, will examine the question of when and how to re-bind a historically significant text block in lieu of repairing or stabilizing an existing binding. The final project will allow the student to propose and execute one or more re-binding options tailored to the preservation needs of a book chosen for treatment.

Enrollment is limited to advanced students in conservation following the library and archive track with the permission of the instructor required before registration. Students must have satisfactorily completed the History of Bookbinding intersession workshop and the summer History of Book Structures Practicum.



CONSERVATION IN CONTEXT: CONSERVING 19TH AND 20TH-CENTURY MATERIALS IN ACADEMIC RESEARCH LIBRARIES

Conservation is critical to the success of different functions in academic research libraries. Students will be introduced, through lectures, observations, and readings, to the role of conservation in accessioning, archival processing, cataloging, exhibiting, loaning, and digitizing workflows. The growing demand for conservation to support teaching and research activities will also be discussed.

Preventive conservation activities specific to research libraries with large archival holdings addressed in the course include iterative housing methodologies and IPM strategies. In addition to lectures and readings on preventive conservation in research libraries, students will participate in inspections of recently acquired archival materials and consultation with archivists.

Students refine their planning, documentation, and book and paper treatment skills focusing on 19th and 20th-century materials. The treatment of brittle paper is a special topic covered in the course. Batch conservation skill development is emphasized to meet the needs of archival and digitization workflows. In the Barbara Goldsmith Conservation Laboratory, students will survey, document, treat, and house NYU Libraries Special Collection materials. Objects to be treated may include scrapbooks, archival documents, ledger books, newspapers, sets of publisher's bindings, and pamphlets.

Enrollment is limited to advanced students in conservation following the library and archive track with the permission of the instructor required before registration. Students must have satisfactorily completed the History of Bookbinding intersession workshop and the summer History of Book Structures Practicum.

THE CONSERVATION TREATMENT OF PRINTS & DRAWINGS I

The materials and techniques of works of art on paper are reviewed with attention given to those characteristics, which are vulnerable to inappropriate conservation treatments. Basic conservation treatments are introduced—surface cleaning, washing, drying, tear repair, and flattening, with emphasis on examination and documentation. Each student is expected to complete several partial exercises and at least one full conservation treatment, including all testing, research, treatment, and documentation.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

THE CONSERVATION TREATMENT OF PRINTS & DRAWINGS II

Additional conservation treatments for prints and drawings are discussed with attention given to stain reduction techniques involving washing and the use of the suction table. Each student will be assigned two to three works of art on paper and is expected to complete all aspects of its treatment.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

INTRODUCTION TO THE CONSERVATION OF PHOTOGRAPHS

This is a treatment course designed for students with no background in the conservation of photographs. The course combines a brief overview of the technical history of photography with the treatment of photographs. Lectures focus on two or three major photographic processes, their technology, manufacture, deterioration characteristics, and their place in the history of the medium. Basic treatment techniques are discussed, demonstrated, and implemented. The course includes lecture, demonstrations and laboratory work. Requirements include readings, the completion of a number of conservation treatments, and the production of a portfolio.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

MAJOR TOPICS IN RARE BOOK CONSERVATION

Through review of relevant literature and selected treatment projects, the student will become familiar with common approaches, strategies, and ethical considerations regarding conservation treatment of rare books. With the goal of contextualizing paper treatments when applied to bound formats, guided readings will consider and treatments may include washing, sizing, mending, guarding, sewing the textblock and binding. Weekly discussion sessions will augment time for treatment in a research library's conservation lab.

Enrollment is limited to advanced students in conservation following the library and archive track with the permission of the instructor required before registration. Students must have satisfactorily completed History of Book Structures Practicum and The Conservation Treatment of Prints & Drawings I.

READINGS IN PAPER CONSERVATION

Students will read and discuss seminal texts in paper conservation according to a series of discussion topics ranging from the history of paper restoration, ethics and aesthetics, to current and outmoded procedures for treating works of art on paper. Students will be assigned a bibliography for further primary source development.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration.

SPECIAL TOPICS IN THE CONSERVATION & EXHIBITION OF RARE BOOKS & MANUSCRIPTS

Depending on the student's previous experience, a treatment project will be chosen to build on existing skills in the examination, documentation and repair of historic book structures, and/or the creation of a new conservation binding. The project may consist of in-depth treatment of one single object, or stabilization of a group of items that present related conservation problems. The challenges inherent in



the exhibition and loan of bound materials will be addressed in the context of the active programs at the Morgan Library & Museum. Students will be instructed in the design and specification of exhibition supports for books, and in the criteria used to evaluate loan requests and facilities reports in relation to the vulnerabilities of bound materials. Students will submit written reports of treatment together with supporting illustrative materials. A presentation at the annual student conference or a professional organization is encouraged.

Enrollment is limited to advanced students in conservation following the library and archive track with the permission of the instructor required before registration. A written project proposal must be approved by both faculty and supervising conservator. Students must have satisfactorily completed History of Book Structures Practicum.

THE TREATMENT OF BOUND MATERIALS IN THE RESEARCH LIBRARY & ARCHIVE

Technical and aesthetic considerations of various methods in the conservation of bound works are considered within the context of the large collection setting. Treatment options, housing and storage are discussed in relation to examples from research library and archive collections, as well as examples treated in individual student projects. The interactions between the special collections book conservation laboratory, library public services, and the traditional library preservation activities of collection management and reformatting/digitization are given special emphasis. The student will carry out treatments of bound materials under the direction of Columbia University Library conservators.

Treatments will be selected to enhance the student's expertise as necessary. By the end of the course, the student should have completed at least one complex book treatment, such as a leather reback or board reattachment, a full-leather binding, washing, guarding and re-sewing and re-binding a textblock. The student will also gain experience in a range of treatments applied to the artifact in general library collections, and collection-level stabilization treatments such as leather consolidation, simple board reattachment, and cloth case rebacks. Weekly discussions with the conservators will introduce the student to collection-wide re-housing, exhibition and imaging projects ongoing in the lab, as well as the conservator's role in protecting collection items through all phases of use and storage within the research library. A presentation at the annual student conference or a professional organization is encouraged.

Enrollment is limited to advanced students in conservation following the library and archive track with the permission of the instructor required before registration. A written project proposal must be approved by both faculty and supervising conservator. Students must have satisfactorily completed History of Book Structures Practicum.

APPLIED SCIENCE ELECTIVES (FINH-GA.2260)

SEMINAR & LABORATORY IN APPLIED SCIENCE FOR CONSERVATION

FINH-GA.2260.VAR [#reg. code]

(Studio, 3 points)

Instructor

Hours to be arranged
Location TBD

TOPICS:

**ADVANCED PREVENTIVE CONSERVATION: IMPLEMENTATION OF KEY
CONCEPTS**

The course investigates selected key concepts of preventive conservation and their implementation in museums and historic houses. The range of topics includes integrated pest management (IPM), emergency preparedness, showcase design, special storage, and mount making. The course will be held in seminar format with some topics taught as half-day workshops by guest lecturers from various disciplines. Dedicated reading sessions will critically review publications and inspire discussions on implementation of results. Field trips to museums in NYC will allow interaction with local conservators in charge of preventive conservation. Each student will receive an assignment to work on a specific project for which an abstract, a report, and an oral presentation will need to be delivered. In addition, students will work as a group on the refurbishment of one of the showcases at the Conservation Center.

Students must have successfully completed Preventive Conservation. Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

**ANALYTICAL METHODS IN CONSERVATION: ADVANCED SCIENCE COURSE IN
CONSERVATION**

The seminar is devoted to current methods of scientific research as applied to the technological study and preservation of art objects. A primary purpose is to develop a capacity for critical review of the literature that involves an increasingly wide range of analytical methods for the investigation of historical technology and, in particular, the characterization of materials and structures on which such studies often depend. Class sessions are devoted to topics of interest to the participants and invoke student presentation and discussion based on weekly reading assignments.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

COLOR & PERCEPTION

This course explores the scientific aspects of color in and on works of art. The range of topics includes history and chemistry of dyes and pigments, color measurements and quantification of color change, accelerated and natural light aging studies, color theories and color order systems, chemical and physical causes of color, advanced research on multispectral imaging, as well as relevant aspects of the science of vision and color perception. The interaction of colorants with binders and substrates will be examined through case studies such as natural dyes on textiles, gold nano-particles in glass, iron gall ink on paper,

solvent and emulsion acrylics for modern paintings, oil paint on canvas and panels, and polychrome sculptures. The course will be held in seminar format with intensive student participation through literature studies and laboratory experiments.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

DEGRADATION & CHARACTERIZATION OF CELLULOSE MATERIALS

Cellulose materials are sensitive to environmental attack. Temperature, humidity, pollutants, and light are the key factors causing the degradation of works of art on paper, textiles, and conservation materials, such as cellulose ethers. The especially sensitive modern cellulose derivatives, used by artists without considering the sustainability and longevity of the creation, are heavily endangered, even under museum conditions. Cellulose acetate and cellulose nitrate are of interest to photography but also encountered as cast objects. The course offers students hands-on experiments to explore the sensitivity of works of art made of cellulose materials and to characterize their degradation. A critical review of the relevant scientific literature prepares participants for advanced discussions of cutting-edge research in the field.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

EXAMINATION & ANALYSIS I: XRD & XRF

This course is offered to provide hands-on experience in the use of x-ray fluorescence spectrometry and x-ray diffraction in order that the student may become an independent user of the equipment available both in the Conservation Center and in the Sherman Fairchild Center for Objects Conservation at the Metropolitan Museum of Art. Class sessions will be spent conducting analytical work related to projects of interest to the participants and in discussion of results. A principal objective is to develop capabilities for interpreting data and for designing optimum analytical strategies for these important complementary methods. In addition to active participation in the meetings, each student is expected to write a report on his or her analytical work during the course.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

MAGING TECHNOLOGIES & OTHER NON-INVASIVE METHODS OF ANALYSIS

The course will introduce students to non-invasive analysis techniques and their advantages and disadvantages when used in conservation. We will look at the questions asked by curators and conservators and how these are best addressed using the range of equipment typically available in small or large facilities. Lectures will introduce the principles of analytical techniques, reinforcing earlier teaching in Instrumental Analysis. Case studies will include technical analysis of materials in works of art and in studies of the deterioration of objects and will focus on works of art on paper and painted surfaces.

Techniques covered will include optical, fluorescence and video microscopy, transmitted light imaging, fluorescence imaging, multi- and hyper-spectral imaging, infrared reflectography, raking light imaging, polynomial texture mapping (PTM), optical coherence tomography (OCT), spectrophotometry, colorimetry, gloss measurement, X-ray fluorescence, Raman and infrared spectroscopy. The emphasis will be on gaining practical experience in the use of techniques and the interpretation of results to complement an understanding of their principles and strengths. Throughout the course students will be engaged in critical reading around the subject and discussing with the group. Exercises may include the preparation of written reports aimed at different audiences or specialisms as well as critical reading of multi-author, multidisciplinary papers. Each student will be assigned a special project to practice the planning, execution, and presentation of a non-invasive examination process.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

INTEGRATED APPROACH TO MATERIALS CHARACTERIZATION

An increasing number of high-tech instrumental analytical methods are available for the identification and characterization of materials. However, small museums might not have access to the equipment, the know-how for interpretation of data, and the required financial resources. Furthermore, one single method may not answer a complex question related to the condition and treatment of an object. The course offers students hands-on experiments to explore fundamental wet-chemistry characterization methods for materials (spot testing), which can be essential in the strategy to analyze an object. Furthermore, an integrated approach including optical microscopy and other methods are exercised on one selected example for each student to assess the potential and limits for each analytical method. A critical review of the relevant scientific literature prepares participants for advanced discussions of cutting-edge research in the field.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

LIGHT & COLOR

The nature of light and the phenomena of color are described by chemical and physical principles. Topics will include color theories as well as practical measurements, history and chemistry of dyes and pigments, evaluation of daylight and artificial light in museums, the science of vision and color perception. Emphasis is on practical considerations in order to display works of art under safe and appropriate lighting conditions.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

PAINT, COATINGS & SOLVENTS



The course explores technical aspects of some common conservation operations employed in the treatment of painted works of art, with particular focus on the application of solvent-borne coatings (varnishes, consolidants, retouching media, etc.), and on the removal by cleaning of old, deteriorated coatings such as discolored varnish layers. The properties and interactions of paints, coatings and organic solvents will be explored in relation to the theoretical foundations and practice of such conservation treatments. Topics addressed include: solvent composition and properties; health and safety considerations in the use of solvents; solubility theory; approaches to describing solvent activity (solubility parameters, polarity descriptors; solvatochromic parameters); solvent mixtures; research into effects of solvents on paint and varnish; polymers and resins in solution; influence of solvent on polymer film properties; practical application of solvents and solvent-borne conservation materials. Student participation will be through literature studies, laboratory exercises, and an oral presentation with accompanying written report.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

THE PHYSICAL PROPERTIES OF PLASTICS

This course aims to introduce students to the current knowledge and recent research regarding the identification, degradation, preventive care, and conservation of plastics and rubbers *found* in modern and contemporary art and design objects. Lectures, demonstrations, and laboratory sessions will allow participants to understand the physical and chemical properties of plastics, to define and assess deterioration, and to plan preventive and active conservation measures, including issues such as handling, marking, and display. This course will bridge the gap between the practical aspects of conserving these materials and the physical-chemical principles underlying their degradation.

Assignments will include a literature study, laboratory exercises, and practical work.

Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

THE SCIENCE OF COLOR

The course explores the scientific aspects of color in and on works of art. The range of topics includes history and chemistry of dyes and pigments, color measurements and quantification of color change, accelerated and natural light aging studies, color theories and color order systems, chemical and physical causes of color, advanced research on multispectral imaging, as well as relevant aspects of the science of vision and color perception. The interaction of colorants with binders and substrates will be examined through case studies such as natural dyes on textiles, gold nano-particles in glass, iron gall ink on paper, solvent and emulsion acrylics for modern paintings, oil paint on canvas and panels, and polychrome sculptures. The course will be held in seminar format with intensive student participation through literature studies and laboratory experiments.



Enrollment is limited to advanced students in conservation with the permission of the instructor required before registration. This course fulfills the advanced science requirement for conservation studies.

ADVANCED ELECTIVES IN TIME-BASED MEDIA ART CONSERVATION (FINH- GA.2270)

SEMINAR & LABORATORY IN TIME-BASED MEDIA ART

FINH-GA.2270.VAR [#reg. code]

(Studio, 3 points)

Instructor

Hours to be arranged

Location TBD

TOPICS:

THE CONSERVATION OF AUDIOVISUAL ART

This course will educate time-based media art conservation students in the history, theory, and practice of the preservation and conservation of audiovisual art. The student will trace the technological and artistic evolution of sound and moving images as a medium looking at specific film, video, and audio formats and carriers. Particular attention will be paid to relevant historical developments in industry and their effect on artistic practice, display, and thought. The objective is to provide the student a foundation in the technological history and significant properties of audiovisual formats so that they are well equipped to work with diverse collections of time-based media art.

Complementing this grounding in the historical and technological evolution of each audiovisual medium, the student will apply this knowledge to assessment, treatment, and conservation decision-making in practical, hands-on settings. The student will learn how to inspect, assess, and play back most formats used in audiovisual artmaking practice. This will involve inspecting and projecting film material, working with audio and video reproducers, various analog and digital monitors, oscilloscopes, and related audiovisual hardware and software, among other activities. In the digital realm, the student will work with software tools to expose and document technical metadata, learn how to properly analyze digital audio and video playback, and perform treatments using a host of different tools and commands.

The student will then synthesize and hone these skills in order to apply them in a wider, institutional context. This will include conducting research; documenting provenance and exhibition history; performing analog to digital migration, both independently and with vendors; transcoding files for exhibition purposes; and analyzing display equipment of time-based artworks in collections.

By stepping through the history of audiovisual artworks, through a complement of lectures and hands-on activities, the student will be equipped to properly identify and address the needs of the specific time-based media formats that they may encounter in collections, allowing them to properly care for the collection as a whole.



This course will meet once a week for 3-4 hours at TBD and TBD (MoMA) partner institution and/ lab. Individual classes will be taught by an instructor, who will also supervise all class assignments. Guest lectures and lab visits with experts in related fields, throughout the greater New York area, will factor greatly into the course.

Enrollment is limited to advanced students in conservation following the time-based media track with the permission of the instructor required before registration.

CONSERVATION DOCUMENTATION OF TIME-BASED MEDIA ARTWORKS: IDENTITY AND AUTHENTICITY IN THEORY AND PRACTICE

Time-based media artworks are often made present through repeated episodes of display or enactment that depend on evolving ecosystems or materials, technologies, individuals and networks of knowledge. Such works of art may involve not only a material variability but also a conceptual processualism, whereby the introduction of difference and change may be necessary to keep these works exhibitable, and in some cases to allow their creation to continue unfolding. The conservator plays an important role both in mediating these changes and in documenting the actions carried out over the course of a work's perpetuation in order to secure the possibility of its continuation in an informed and equitable manner. But how is an artwork's historicity maintained while respecting its potential or need to change and evolve? Are authenticity and identity innate qualities—revealed and preserved by the conservator—or judgements modulated by contexts and values? How is subjectivity accounted for in existing frameworks and practical approaches to conservation documentation? Who holds the power to define and preserve an artwork's identity and authenticity, and how is (or isn't) that power distributed?

This course is aimed at providing a foundational knowledge of the key theoretical frameworks, concepts, and practical approaches employed in the conservation of time-based media and contemporary art. Focusing on documentation and notions of artwork identity and authenticity, weekly readings of literature on time-based media and contemporary art conservation will be critically interrogated alongside supplementary readings from art history, anthropology, digital archives, performance studies, and philosophy. Students will be expected to apply the concepts introduced in the readings to case studies discussed in class, in class presentations on artworks of their own choosing, and in their practical work conducted throughout the semester. Practical work will consist of research into and documentation of several artworks currently held in museum collections. Students will be expected to conduct archival research, artist and/or stakeholder interviews, and create artwork documentation for the purposes of conservation. In their own research diaries and in final papers, students will be expected to critically reflect on their experiences conducting artwork research, creating conservation documentation, and their role in constructing the knowledge around the identities of the artworks examined.

Enrollment is limited to advanced students in conservation following the time-based media track with the permission of the instructor required before registration.



EXHIBITION AND INSTALLATION OF TIME-BASED MEDIA ART

Time-based media works are best understood as functional systems that must be installed for the artwork to be experienced. Components of these systems may include video files, media players, monitors, speakers, projectors, cable connections, furniture, sculptural or installation elements, carpets, wall colors, or other architectural features.

The choice of components and their constellation is often loosely defined by the artist; for a majority of time-based media works, variability and change are inherent and artworks are frequently reconfigured in response to given exhibition spaces, curatorial concepts, or changing technological landscapes. This lack of fixity and the resulting necessity to interpret the artwork's "score" for every iteration makes time-based media works highly vulnerable to misinterpretation and poor display that compromises the artwork's integrity. To prevent this harm to the artwork, time-based media conservators, along with other stakeholders, closely manage the permissible change and engage in complex decision-making processes to determine the components and installation parameters for each iteration of a time-based media work. These complex decision-making processes are critically informed by the conservator's in-depth analysis and identification of the work-defining properties of all technical components of the system; his deep understanding of the relationships between components; his identification of component's conceptual and aesthetic significances for the artwork; his deep knowledge of the impact of different (replacement) devices and technologies on an artwork's behaviors and discernable audiovisual output, and his ability to identify potential sources of compromise to the image and sound quality.

In keeping with the concept of a treatment report in traditional conservation, the time-based media conservator does not only document the result of the intervention, but the (cross-disciplinary) decision-making that leads to an iteration. The goal of the Iteration Report is not just to monitor the change of an artwork, but to provide a foundation and reference for future interpreters of the work.

This course consists of three sections: (1) the introduction and comparison of a variety of contemporary and legacy display devices and technologies and their impact on artworks, (2) the discussion of display scenarios that can be considered harmful to an artwork's integrity, and (3) the documentation of iterations and the decision-making process determining them.

The course will meet once a week (14 weeks plus exam) for three hours and will be delivered as a seminar program supplemented by gallery and lab visits. The course leader will place the specific topics in the larger context of TBM art conservation and work with students on their assignments.

The course is offered on alternate years and is required for second/third year TBM students at the Conservation Center, and will also be open to students from other NYU programs. Enrollment will be limited to four students.

INDIVIDUALIZED INSTRUCTION COURSES (FINH-GA.2280-2283)

INDIVIDUALIZED INSTRUCTION: TREATMENT OF DETERIORATED WORKS OF ART I & II

FINH-GA.2280.001 (fall) [#reg. code]



FINH-GA.2281.001 (spring) [#reg. code]
(Studio, 3 points)
Conservation Center faculty and consultants
Hours to be arranged

The student is assigned specific deteriorated objects related to their field of special interest. The student examines and records their condition and then recommends and performs courses of treatment. A review is made of published records of treatment of related works. Written reports of treatment together with supporting illustrative materials are submitted.

Enrollment is limited to advanced students in conservation. A written project proposal must be approved by both faculty and supervising conservator prior to registration.

INDIVIDUALIZED INSTRUCTION: EXAMINATION & ANALYSIS I & II

FINH-GA.2282.001 (fall) [#reg. code]
FINH-GA.2283.001 (spring) [#reg. code]
(Studio, 3 points)
Conservation Center faculty and consultants
Hours to be arranged

This course involves the instrumental and scientific analysis of materials of a specific nature. Emphasis is placed on research to develop new methods of examining, preserving, and restoring works of art exhibiting particular types of structural failure. The results lead to a publishable paper.

Enrollment is limited to advanced students in conservation. A written project proposal must be approved by both faculty and supervising conservator/conservation scientist prior to registration.

FOUNDATIONS II: CONSERVATION COURSES FOR ART HISTORIANS

These courses introduce students in the art history program to the technical and material aspects of art objects, and satisfy the Foundations II requirement.

FOUNDATIONS II LECTURES: FINH-GA.2045

LECTURE IN CONSERVATION FOR ART HISTORIANS

FINH-GA.2045.VAR [#reg. code]
(Lecture, 4 points)

TOPICS:

CARING FOR MUSEUM COLLECTIONS: A COLLABORATIVE APPROACH

Caring for collections in museums, historic houses, library and archives, or private collections requires a team of professionals able to achieve the access and display desired by stakeholders, while also striving for maximum preservation of the collection. The responsibility for selecting exhibition aesthetics, types of illumination, and display cases; determining environmental controls and light levels; and arranging the logistics of installation and loans, are responsibilities shared by curators, registrars, engineers, architects,



lighting designers, mount makers, conservators, and administrators. This course will introduce the core principles of preventive care of collections and prepare students to become competent partners for their long-term preservation. Lectures will include an overview on causes of damage to artworks and preservation challenges associated with a variety of materials, including precious metals, digital media, modern paintings, plastics, and works on paper. Preservation concerns related to environmental conditions, access and handling, and storage and display will be identified. A session on connoisseurship and illumination will highlight the visual experience of artworks viewed in different lighting conditions. Special emphasis will be placed on the decision-making processes based on best practices and the sometimes conflicting needs of stakeholders. Issues related to the examination, documentation, exhibition, loan, and the conservation of artworks will be discussed through case studies in class and during site visits. Two field trips to major local institutions will allow students to interact with key players who have broad experience in art preservation. Access to major resources addressing preservation management will provide valuable background knowledge for making informed decisions in a collaborative manner.

The grading will be based on written and oral reports of assigned readings, a case study of workflows for preventive care, an annotated bibliography for a selected topic, and a risk assessment of a collection.

The course is open to students in art history, archaeology, art management, and museum studies or related fields.

This course may be taken in fulfillment of the Foundations II requirement for art historians.

ISSUES IN CONSERVATION: HISTORICAL & ETHICAL CONSIDERATIONS IN THE DEVELOPMENT OF A DISCIPLINE

This course will examine the development of art conservation in both theory and practice from its earliest manifestations to the current decade. An historical overview of the field will serve as background for a more detailed exploration of core issues in preservation and restoration. How does conservation change the appearance—and by extension, the meaning—of a work of art? How have the theoretical underpinnings of the discipline evolved, and what role do they play in practice today? And how has conservation responded to the enormous social, historical and intellectual changes of the last 100 years? Topics to be discussed include the role of artist-restorers; the rise of a discipline; the impact of science and scientific inquiry; cleaning controversies and the lure of positivist thinking; making mistakes; historic preservation, the development of ethical standards and the persistence of ambiguity; decision-making in conservation; conservation and the law; and the challenge of modern and contemporary art. Readings will range from theoretical treatises to case studies of treatments, but no pre-requisite of scientific knowledge is required.

The course is open to all art history, archaeology, and conservation students. This course may be taken in fulfillment of the Foundations II requirement for art historians.

LOOKING AT PAINTINGS: SEEING CHOICES & CHANGE

What do you see when you look at a painting? That question could have several answers, the most literal of which is that you see the visual effects of the materials and technologies used to create the work and of everything that has happened to it since it was created. This course considers how both of those factors contribute to the appearance of Western paintings from 1300 to today, with special focus on Italian painting from 1400 – 1600.

How are paintings created? What materials were available to artists at given moments? How could those materials be manipulated to achieve different effects? Why did artists make certain choices over others? How and why do paintings change in appearance over time? Which of those changes are considered “patina” and which “damage” – and why? What can (and should) conservators do to address those changes, and how do conservation treatments themselves affect the appearance of paintings? How do we know the answers to these questions? What scientific analytical techniques can be used to understand painting materials? What are the possibilities and limitations of those techniques? And what can we understand by simply really looking?

This lecture course will be held predominantly at the Institute of Fine Arts. Some classes may be held at the NYU-IFA Conservation Center. If possible, there may be some visits to museums and other collections. The final grade will be based on three elements: participation in class discussion, a short mid-term paper based on an assigned reading and a final paper involving the visual examination of a painting in a public collection.

The course is open to all art history, archaeology, and conservation students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Seating will be limited to 30 students with no interview necessary for registration.

TECHNOLOGY & STRUCTURE OF WORKS OF ART III: TIME-BASED MEDIA

This course will introduce the technology and media that constitute various categories of time-based media (TBM) art, in both theory and practice. A historical overview of the development of TBM art will provide an introduction to the conservation challenges associated with media categories such as film, slide, video, light, sound, kinetic, interactive installations, as well as born-digital, software-based, and internet art. The issues related to the acquisition, examination, documentation, exhibition, installation and the conservation of TBM will be discussed through case studies. Conservation concerns will be identified in the context of media and equipment obsolescence, to illustrate the consequences of rapid technical changes in components used by artists in the creation of these works. Emphasis will be put on the decision-making processes based on ethical standards in this new and quickly evolving discipline. The main resources and research projects addressing TBM art preservation will provide the conceptual framework for future professionals entering this highly collaborative field.

The course will follow a lecture format supplemented by optional lab visits. The individual classes will be taught by leading scholars, practitioners, conservators, curators, archivists, computer scientists, artists, and engineers from within the greater New York City area and coordinated by Christine Frohnert,



consultant and conservator in TBM art, and TBM Program Coordinator. Students from various backgrounds, including art-history, art conservation, engineering, art management, digital humanities and computer science are welcome.

Enrollment is limited to conservation students and to other qualified students with the permission of the faculty of the Conservation Center. Enrollment is limited to # students. Art history MA and PhD students must register for FINH-GA.2045.00X for four points. Permission of the instructor must be received before registering for this course.

TOPICS IN TIME-BASED MEDIA CONSERVATION

The course will examine one of the newest and fastest emerging fields in art conservation in both theory and practice: *time-based media art*. Technology-based artworks are referred to as *time-based media (TBM)* works, and are characterized by having a durational element, such as sound, slide, film, video, software, performance, light, movement, or internet, that unfolds to the viewer over time. Other terms commonly used for this new discipline are *technology-based art*, *electronic media art*, or *media art*.

The conservation of TBM artworks is of increasing concern to the profession, not only because of the preservation challenges of rapidly obsolescing components, but also because of the artworks' very specific relationships to time, space, and concept. Conservators and curators must implement new conservation knowledge, examination techniques and strategies to preserve these artworks as well as their respective materials and technologies. An historical overview of the development of TBM art will set the basis for a closer look at the conservation challenges of media such as film, slide, video, light, sound, kinetic, interactive installations, as well as digitally-born, computer-based, and Internet art.

The significant set of issues posed by the examination and the conservation of TBM will be discussed through case studies. Emphasis will be put on the decision-making processes based on ethical standards in conservation. The main resources and research projects worldwide that focus on TBM art conservation will be introduced.

This course will take advantage of the exceptional expertise in TBM art conservation by inviting 10 local and international scholars to present their area of research. The course will meet twice a week, with public lectures in the evening to allow input and open a dialogue with a larger professional audience of TBM conservators, curators, archivists, computer scientists, artists and engineers from the greater New York City area.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

WHY CONSERVATION? UNDERSTANDING THE PRESERVATION & RESTORATION OF CULTURAL HERITAGE

Conservation may (and does) shape the way we perceive our most valuable artworks and landmarks, and thus has an important impact on heritage, artistic or otherwise; and yet, it is not always well understood.



In this course, the core assumptions of conservation, from its ethical principles to its very *raison-d'être*, will be analyzed and discussed. Along the way, the evolving approaches to conservation, since its inception to its present incarnations, will be reviewed. The ethical and theoretical principles of conservation will also be discussed and analyzed from a contemporary perspective—being aware of the different approaches to conservation, and of its theoretical strengths and weaknesses, will allow for a better understanding of art conservation, and of heritage conservation at large. Topics to be discussed include: the theories of conservation, from the 18th-century to 1950; the advent of science; the idealist response; the problems with classical principles; conservation as truth-enforcement and the fabrication of authenticities; moving forward: the semantic turn; and conservation in the real world. Readings will range from theoretical works to case studies. No prior scientific or philosophical knowledge is required.

The course is open to all art history, archaeology, and conservation students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

FOUNDATION II SEMINARS: FINH-GA.3045

SEMINAR IN CONSERVATION FOR ART HISTORIANS

FINH-GA.3045.VAR [#reg. code]

(Seminar, 4 points)

TOPICS:

ALTERATION & DETERIORATION OF WORKS OF ART: PHOTOGRAPHIC MATERIALS

This course provides an introduction to the history, fabrication and technical developments of the major photographic processes of the nineteenth and twentieth centuries. The causes and prevention of deterioration mechanisms in the various imaging systems are examined. Emphasis is placed on process identification. The problems of handling, storing, and exhibiting photographic collections are discussed. Conservation options for the treatment of photographs are considered, ranging from minimal intervention options to full treatments.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

ART WITH A PLUG: THE CONSERVATION OF ARTWORK CONTAINING MOTION, SOUND, LIGHT, MOVING IMAGES & INTERACTIVITY

The course will examine one of the newest and fastest emerging fields in art conservation in both theory and practice. The preservation of artworks containing technology-based components is of increasing concern to the art conservation profession, not only because of the preservation challenges of rapidly



obsolescing components, but also because of the artworks' very specific relationships to time, space and concept. Conservators and curators must implement new conservation knowledge, examination techniques and strategies to preserve these artworks as well as their respective materials and technologies. An historical overview of the development of electric and electronic media art will set the basis for a closer look at the conservation challenges of media such as film, slide, video, light, sound, kinetic, interactive installations as well as digitally-born, computer-based and Internet art. The significant differences and challenges posed by the examination and the preservation of media-based art will be discussed through case studies. Emphasis is put on the decision-making processes based on ethical standards in conservation. The main resources and research projects worldwide that focus on electronic media conservation will be introduced.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

THE CONSERVATION OF INSTALLATION ART

This seminar on conserving installation art focuses on documenting the conceptual and material components of installations for purposes of conservation and re-installation. It covers recent literature on installation variability and object contingency, and explores models for collaborative research. Other concerns addressed in the course are acquisition processes for nontraditional works, and both the legal and ethical framework governing artists' moral rights in the conservation context. Weekly seminar sessions combine lectures with student presentations and discussion on course readings. Students work in teams to research complex installations in MoMA's collection. Research includes consulting with MoMA staff and interviewing the artists to build documentation needed to re-install and conserve the works in the future. Student teams conduct artist interviews and reports on each installation. In addition, students individually write seminar papers on broader topics relating to the conservation of installation art.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

THE CONSERVATION OF MODERN & CONTEMPORARY ART

This course provides an introduction to the decision-making process for the conservation of modern and contemporary works of art. The range of works includes plastics, modern paints, metal alloys, time-based media, installations and ephemera. The student will perform extensive research on a case study in order to understand the material structure, history, context and the concept of the artwork. Students will learn to develop conservation-restoration strategies for modern materials, audio-visual media as well as for electronic, kinetic and digital works of art. Potential projects include surveys, research and treatment. The project may focus on more theoretical and/or practical problems of conservation of modern and



contemporary art and objects. The project may ideally be realized in collaboration and within a partner museum or another institution.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

THE CONSERVATION OF PUBLIC ART

The course will explore the complex and interlocking issues involved in the conservation of public art collections. Topics will emphasize the conservation of outdoor sculpture and address treatment, documentation, and condition assessment. Students will learn about the physical behavior of materials exposed to a harsh outdoor environment, which will include bronze, stainless steel, painted metal, kinetic art, stone and contemporary materials. An overview of coatings will be covered as well as practical aspects in their application and removal. Other topics fundamental to the care of outdoor collections will include strategies for developing a maintenance plan, evaluating risks, and insuring safe installation. Course material will also include issues faced by public art administrators in managing a collection and the critical thinking involved in ethics, public engagement, and the impact of the community.

The course will primarily be held in seminar format as well as laboratory exercises and visits to local sculpture gardens. Students will write condition assessments, formulate treatment options, practice using conservation materials, and develop a maintenance plan. Laboratory exercises will involve coatings, corrosion removal and color documentation.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

FROM RUIN TO RECORD: THE DOCUMENTATION OF SITES

In an age of unprecedented change in the human environment, we are confronted with the uncomfortable truth that we will be unable to adequately conserve the entire corpus of sites and objects of historical importance, and that, in many cases, our prior interest over the past two centuries has actually hastened their decay. In light of this, conservation practice is becoming more integrated with collections management methodology and relies increasingly on robust digital documentation techniques that have become inexpensive and widely available. The goal of this course is to introduce students to the use of various documentation techniques for survey and assessment, public outreach, and both short and long-term planning for cultural heritage collections. Students will work collaboratively to learn and apply a variety of digital documentation techniques including spherical photography, photogrammetry, RTI and other applications of computational photography, kite and balloon borne aerial photography, and condition mapping. These techniques will be introduced through case studies and practical exercises, emphasizing the importance of deciding what to document and how to document. Through a combination of lectures,



laboratory exercises, and a central field project, students will explore how these basic choices inform larger questions about deploying limited resources towards site and object conservation.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

ISSUES IN CONSERVATION OF MODERN & CONTEMPORARY ART

This seminar covers issues in conserving modern and contemporary art that cut across the traditional sub-fields of conservation. Course topics include documenting artists' intent, moral rights legislation, the contingent object in contemporary art, the language of materials, and issues in cleaning contemporary art, installation art, and public art. The collaborative model of research and decision-making advanced in the course responds to artists who use new materials and technologies, with conceptual intentions that sometimes challenge the conservation ethic. Weekly seminar meetings combine lectures with discussion on course readings. Museum and studio visits provide opportunity to discuss case studies with practicing conservators, archivists, curators, and artists. Course work includes a brief paper based on a course project, and research leading to a seminar paper.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

MATERIAL & METHOD IN MODERN ART

This seminar will explore the relationship between artists and their material choices and how artistic investment characterizes the nature of preservation and scholarly engagement. Discussion will focus on the materials and working methods of American modern artists with particular attention paid to their technical experiments, choices, and preferences as evidenced in their art. Questions spawned from physical observations and artists' comments will direct investigations toward the interplay of the material and immaterial in the art of Jackson Pollock, Mark Rothko, Barnett Newman, and Jay De Feo among others, as well as contemporary artists immersed in specific material concerns such as Dario Robleto. The salient issues will address theoretical concerns of conservators, art historians, curators and conservation scientists. Students will be expected to assess the ramifications of the creative process on a work(s) of art of their choice through examination and artist interviews, and contribute a presentation and written final paper that discuss their findings.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.



MATERIAL, RECIPE, RECONSTRUCTION: NEW METHODS IN TECHNICAL ART HISTORY

Technical art history, a term for the interdisciplinary study of the making and meaning of works of art through analysis of the material choices of the artist, has become an important tool for art historians interested in object-based research. This seminar will introduce students to a wide range of techniques and approaches currently used in technical art history, including: the technical examination of artworks, including microscopy and different wavelengths of light; imaging techniques that enhance our capacity to see and understanding surfaces and volumes; technological source research such as the study of artists' treatises and recipes; and the reconstruction of works of art in the studio to better understanding notions of artistic intention and change. Students will be assigned works of art to study based on their interests, and will write a research paper on a current methodology.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

MATERIALS & MEANING IN ABSTRACT EXPRESSIONISM

The material study of abstract expressionism has expanded substantially in recent years. Extensive literature on materials and techniques has accrued around Pollock, de Kooning, Hofmann, Rothko, and Still and, to a lesser extent, other key artists of the period. This seminar will examine and question the contribution of technical studies to art historical literature and will assess their significance in understanding abstract expressionism and the artists associated with this movement.

Visits to museums and collections will focus on developing skills in “reading” paintings, applying relevant material studies, and evaluating the results. Additional focus will be placed on artists heretofore under-represented by material studies.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

ON PAPER: ARTISTS' METHODS AND MATERIALS IN CONTEXT

This course will investigate materiality in the context of art-historical study, with an emphasis placed on 19th- and 20th-century drawings and unique multiples. Thirty years ago technical art history was a burgeoning field of study among a small number of museum conservators, curators and scientists. Today curatorial/conservation partnerships are common and analytic methods to examine and characterize artworks are sophisticated and often nondestructive. The intersection of the three disciplines – art history, conservation and materials science – has made it possible to study art in a more holistic and objective manner by understanding the art-making materials, the methods of using them, and the conscious choices made by artists to achieve their aesthetic goals. Additionally, changes to works of art, whether



the result of inherent instability, external environmental factors, or artist's intent may be more readily identified and assessed.

Students will evaluate selected recent technical studies and other scholarship, primarily within the pages of exhibition catalogs and the galleries of museum exhibitions. Case studies will be presented to show how artists' methods and materials inform the broader art-historical context. The course will address the meaningful integration of technical study into one's own curatorial/art history practice. Additionally, students will examine works of art firsthand to see how various manipulations of different art-making materials influence their appearance. A presentation and paper on selected works by a specific artist or in a particular medium, for example, collage or pastel, will be required. Dialogue will be encouraged. Classes will take place at the IFA and within the study rooms and galleries of nearby museums.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

PERSISTENT PICTURES: EASEL PAINTINGS AND THEIR CONSERVATION

Conceived as introduction to the conservation of Western paintings, this seminar will explore the concerns of that discipline as perennial yet historically inflected. The course will consider the structural and aesthetic treatment of paintings with regard to practical procedures, historical implementation, and philosophical implications. Painting and conservation materials, lining, cradling, transfer, consolidation, varnish reduction, varnishing, and common means of technical study are among the fundamental subjects covered. More theoretical topics include the removal of earlier additions, cleaning and the notion of patina, approaches to loss and theories of retouching, and the challenges of modern paintings. The seminar aims to develop visual acuity through object-based study in galleries and the laboratory, and will combine lectures, discussion, and museum visits. Each student will lead a session based on course readings and prepare a final paper on the technical examination, conservation assessment, and proposed treatment of a painting.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

SUBJECTIVITY & PRESERVATION OF CONTEMPORARY ART

Collecting and preserving modern and contemporary art requires decision-making at various levels. The dynamic of the conservator and the physicality or material life of the work, curatorial/conservation collaboration, artist rights and institutional mission all come into play. This complex structure necessitates vigilance and careful consideration on the part of all stakeholders. In recent years the subject of what should be preserved has broadened and has become a topic with a multiplicity of positions that challenge our notions of preservation and historical integrity. Through specific case studies chosen by students in



conjunction with the instructor, the premise of the seminar will be to chart the course of an artwork from idea to conception to exhibition to documentation to long-term preservation. Through an analysis of these stages and the perception of the work by all participants including the artist, the spectator, critics, dealers, curators and conservators, the course will elucidate the difficult decisions one makes when dealing with art's power to transform itself over time and the decisions a conservator, in collaboration with others, must make about preserving cultural patrimony. What is the "medium", how does one determine appropriate interpretation, how an artist's attitude may have changed over the years. Does the spectator factor into the decision? the estate? the market? Thorny topics and significant discrepancies in perception will be tackled and discussed. A presentation and paper will be required by each student to complete the course, related to their particular case study. The students will be evaluated by the clarity and creativity of their presentations, writing ability, their insight into the complex issues raised in the class. Short essays on readings and a paper/presentation on their case study will be requirements for the class. Classes will be held at the IFA, as well as galleries, artist studios or museum labs.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

TECHNICAL ART HISTORY IN A MUSEUM SETTING

Technical art history, a term for the interdisciplinary study of the making and meaning of works of art derived through their close looking, has become an important tool for art historians interested in object-based research. This approach, which requires an active and continuous dialogue between art historians and conservators, is greatly facilitated in a museum setting because of the proximity of the artworks and the various resources necessary for their direct examination, documentation, and analysis. The conversation is even further enriched by the inclusion of a conservation scientist. This seminar examines the various roles played by the conservator, art historian/curator, and conservation scientist in a museum: ranging from exhibition concept and planning, accurate identification of media and methods of manufacture, complete and consistent catalogue entries, technical essays, loan requests and requirements for environmental conditions, period framing, alternate presentation formats, to installation design and lighting. Case studies will be used to explore how technical art history was deliberately incorporated into highly popular exhibitions at The Museum of Modern Art, including Redon, Seurat, Matisse, Degas, and Picasso. Students will be assigned a recent museum exhibition to identify and analyze its technical art history components as a means to discuss successes and possible advancements to this approach.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.



THE TECHNICAL CONNOISSEURSHIP OF TWENTIETH-CENTURY WORKS OF ART ON PAPER

The physical and chemical properties of works of art on paper from the 19th, 20th, and 21st centuries will be considered as a complement to art historical connoisseurship. Concurrent with the close study of modern media and techniques, students will carry out complete technical examinations of one print and one drawing for final presentation to the class. Emphasis will be placed on the correlation of physical evidence as it relates to authenticity, original function, artist's intent and present-day aesthetics. Final grade will be based upon oral presentation and written Examination Reports.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

THE TECHNICAL CONNOISSEURSHIP OF WORKS OF ART ON PAPER

The physical and chemical properties of works of art on paper will be considered as an inherent aspect of art historical connoisseurship. Concurrent with the close study of both traditional and modern media and techniques, students will carry out complete technical examinations of one print and one drawing for final presentation to the class. Emphasis will be placed on the correlation of physical evidence as it relates to authenticity, original function, artist's intent and present-day aesthetics.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

TEXTILES IN THE MUSEUM CONTEXT: UNDERSTANDING, PRESERVING, AND PRESENTING

Textiles have a rich and ancient history and are an irreplaceable part of our everyday lives. Historical textiles in a museum collection present a unique set of challenges in their understanding, preservation, and presentation in an exhibition. The seminar will examine textiles from a conservator's point of view within a museum context from multiple technical angles: the spectrum of technologies and structures used to make and embellish textiles, environmental factors that affect textiles in the museum setting (temperature, relative humidity, light, pollution, and pests), the ability to look at textiles and assess and record their condition, and strategies for the safe exhibition and storage of museum textiles. The seminar will emphasize the role of collaboration within the museum in order to achieve the analytical, preservation, and exhibition goals addressed during the semester.

The seminar will be held at both the Conservation Center and in the Textile Department and Textile Conservation Lab at Cooper Hewitt, Smithsonian Design Museum. The final grade will be based on three elements: participation in class discussion based on the assigned reading, a mid-term short paper based



on researching and analyzing a textile in the Cooper Hewitt collection, and a final paper involving the analysis of a second textile and its incorporation into a hypothetical exhibition and storage setting.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

FOUNDATION II COLLOQUIA: FINH-GA. 2545

COLLOQUIUM IN CONSERVATION FOR ART HISTORIANS

FINH-GA.2545.VAR [#reg. code]

Colloquium, 4 points)

TOPICS:

CONNOISSEURSHIP: MATERIALS & TECHNIQUES OF EUROPEAN & AMERICAN PAINTINGS, 1200-1900

Beginning with early Italian and ending with early twentieth-century paintings, the course will introduce the students to the materials and techniques used to make paintings and how these changed over the centuries. Topics will include supports, preparations, gilding practices, pigment and the development of the artist's palette, mediums and their characteristics, varnishes, and alteration and mutilation.

Introductory slide lectures will alternate with visits to museum galleries, primarily the collections of The Metropolitan Museum of Art. An important part of the class will be directed reading of a select bibliography and discussion sessions.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

CULTURAL HERITAGE IN TIMES OF ARMED CONFLICT

Armed conflict, in its extreme case, war, remains a fundamental aspect of human behavior. While the central focus of the colloquium will be the preservation of cultural property, both movable and immovable, the historical record and modern writings examining the theory of war, conventions regarding the prosecution of war will provide background and context for the discussion of case studies involving individual conflicts, cities and monuments. An essential model to be considered is that of preparation, response and recovery as demonstrated in societal engagement with natural and environmental disasters. When considering the post-war recovery effort, the role of reparations, rebuilding and restitution after recent conflicts will be evaluated in response to modern conservation theory.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

DATING & PROVENANCE STUDIES IN ART & ARCHAEOLOGY

In the past three decades, the range of technical approaches applied to archaeological and art historical questions has broadened greatly. Though such techniques have added much to our knowledge of the materials of art and archaeology, the results have not always been unambiguous. Through a critical examination of the literature, the current state of technical examination, with emphasis on archaeological artifacts and sites, is evaluated. Among the techniques to be considered in the context of case studies are radiography, radiocarbon dating (traditional and direct counting); thermoluminescence, dendrochronology; stable isotope analysis; dedolomitization; desert varnish and other studies of patina; pyrolysis gas chromatography; and elemental analysis. An oral report accompanied by a bibliography and an abstract are required. A short paper forms an additional requirement.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

ENVIRONMENTAL EFFECTS ON THE PRESERVATION OF CULTURAL PROPERTY

The course is divided into two integrated components. In the first, a study is made of the environmental agents causing physical and chemical changes in cultural property. Included are the separate and joint actions of heat, humidity, light, pollutant gases, and biological agents. The mechanisms of degradation and possible mitigative strategies are investigated. The second focus of the course is the decision-making process in collections management, including assessment and management of risk associated with museum display, traveling exhibitions, adaptive reuse of historic structures and cultural tourism at archaeological and historic sites. Legal and ethical questions such as those associated with the restitution of cultural property and the preservation of Native American sites are considered. An oral report accompanied by an outline, a bibliography and an extended abstract are required.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

INFORMED LOOKING: TECHNICAL CONSIDERATION FOR THE ART HISTORIAN & ARCHAEOLOGIST

This course is introductory and nontechnical, designed primarily to acquaint art historians with the nature and use of materials in art and archaeology. The historical sources dealing with art technology are considered in conjunction with the modern methods of technical examination. The scientific methods employed in the dating, authentication, and examination of monuments and works of art are examined critically. Special attention will be paid to the examination of objects in The Metropolitan Museum of Art.



The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.

LASCAUX TO 9-11: CASE STUDIES IN ARCHITECTURE CONSERVATION

As societies gained increasing knowledge of the physical properties of materials and of the structural behavior of the built environment, there was a transition from such readily available materials as wood, stone and clay to modified materials, e.g. fired brick, bronze, glass, steel and mortars, to composite and eventually fully synthetic new materials. These developments led to ever more complex structures and innovative solutions to architectural challenges. The wide range of materials employed in creating the built environment has introduced many new mechanisms of damage and failure but also new possibilities for mitigation of damage. Through the use of case studies of monuments, many drawn from the UNESCO World Heritage List, we will follow the evolution of building practice and the response of conservators, engineers and scientists charged with preserving these structures. Included in our discussions will be the ethical concerns associated with anastylosis, landmarks preservation, adaptive reuse and facadism.

The course is open to all art history, archaeology, and conservation students; enrollment is limited to # students. This course may be taken in fulfillment of the Foundations II requirement for art historians. Students must have the permission of the instructor before registering for this course.