

SYLLABUS

Course ID: ARCH 551
Course Title: Conservation Methods and Materials
Units: 3
Description: Concepts and techniques for building conservation including identification of treatments, recordation and research, material properties and behavior, building forensics, and implementation of preservation projects.
Prerequisites: **The Professor recommends completion of ARCH 549 prior to taking ARCH 551 due to the need to know and apply the basic principles and criteria of the practice of heritage conservation in the United States to the assessment and treatment of building materials and systems. Those wishing to take this course are requested to confer with the Professor if they have not completed ARCH 549.**
Semester: Spring
Instructor: Peyton Hall, FAIA, Adjunct Professor
Office: USC provides a shared workspace, but not an office.
Lecturer can be reached at his office of private practice:
12 S. Fair Oaks Ave., Suite 200
Pasadena, California 91105
Phone: 626.793.2400 x 107
Email: peyton@historia.com

Introduction and Purposes

All classes start at 6:00 p.m., unless otherwise listed or notified. There will be guest lecturers who specialize in different disciplines; a revised course schedule may be issued because guest lecturers' schedules are subject to change. Students must provide their own transportation to two off-campus classes. In addition, the course project will require off-campus daytime visits for observation of a historic site.

*The required reading for the course is Robert Young's Historic Preservation Technology (New York, John Wiley & Sons) and hand-outs, and material posted on Blackboard. Some reading assignments are taken from the *Preservation Briefs* published by the National Park Service and available on the internet. Students are encouraged to purchase these publications in bound hard copy for study and future reference (refer to the list of class references). There are two additional texts that are highly recommended for purchase as noted in the references hand-out. Students are encouraged to use a binder to collect hand-outs from the instructor and guest lecturers.*

The Professor is Adjunct (part-time) and does not have a full time office on campus. Therefore, please use the telephone or E-mail contacts above at any time. Official "office hours" are from 4 pm to 6 pm in the historic preservation studio on the third floor on class days; please make an appointment in advance for this time or any other time that you would like to request a meeting. The instructor will in general be available before and after class, and will make appointments to meet students on class days at USC, or at his office of private practice on other days. You are welcomed and encouraged to discuss class topics and related topics of interest to you during and outside of class. E-mails and telephone calls are welcomed at any time, and responses will be made as quickly as possible.

- 1. January 13 Introduction**
- Textbook: Robert A. Young, Historic Preservation Technology (New York, John Wiley & Sons, 2008)
- Course organization
Class texts
References and resources
Standards & Criteria (Secretary of the Interior's Standards; AIC Ethics)
- Case Studies: Reading a building: 321 W. Chapman Ave., City of Orange
American Cinematheque at the Egyptian Theatre
- Homework: Assigned reading:
- A. Standards for Rehabilitation & Guidelines for Rehabilitation Historic Buildings
 - B. Preservation Brief 35, Understanding Old Buildings: The Process of Architectural Investigation
 - C. The Secretary of the Interior's Standards for the Treatment of Historic Properties: A Philosophical and Ethical Framework for Making Treatment Decisions
 - D. ASTM E2018-99, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process
 - E. Preservation Brief 43, Preparation of Historic Structure Reports
 - F. Young, Chapter 1, Overview, pp. 1-16; Chapter 3, Building Pathology: Investigation, Analysis, and Assessment, pp. 31-44; Appendix A, Secretary of the Interior's Standards for the Treatment of Historic Properties, pp. 403-414.
- 2. January 20 Wood**
- Homework: Assigned reading:
- A. Young, Chapter 4, Wood, pp. 47-77; Chapter 9, Exterior Wall Cladding, pp. 175-180.
 - B. Preservation Brief 9, The Repair of Historic Wooden Windows
 - C. Preservation Brief 19, The Repair and Replacement of Historic Wooden Shingle Roofs
- 3. January 27 Plaster**
- Homework: Assigned reading:
- A. Young, Chapter 17, Decorative and Flat Plaster, pp. 319-332.
 - B. Preservation Brief 21, Repairing Historic Flat Plaster - Walls and Ceilings
 - C. Preservation Brief 22, The Preservation and Repair of Historic Stucco
 - D. Preservation Brief 23, Preserving Historic Ornamental Plaster

4. **February 3** **Metals: Ferrous & Copper Alloys, Aluminum**
- Homework: Assigned reading:
- A. Young, Chapter 7, Architectural Metals, pp. 131-152; Chapter 9, pp. 184-187.
- B. Handout: Metals in America's Historic Buildings, Uses and Preservation Treatments, pp. 134-139.
5. **February 10** **Paint and Coatings**
- The Martin Eli Weil Memorial Lecture*
- Homework: Assigned reading:
- A. Young, Chapter 14, Walls and Ceilings, pp. 271-287; Chapter 18, Protective and Decorative Finishes, pp.333-350
- B. Preservation Brief 10, Exterior Paint Problems on Historic Woodwork
- C. Preservation Brief 37, Reducing Lead-Paint Hazards in Historic Buildings
6. **February 17** **Assignment of Course Project**
Samuel & Harriet Freeman House
- : **Site visit to Course Project**
- Please find your own parking nearby
6:00 – 8:30 pm; if you are late, call me at 213.445.5557.
- Please bring a flashlight if possible.*
- Course project topic research and field observations through completion of the semester
7. **February 24** **Concrete**
- Homework: Assigned reading:
- A. Young, Chapter 6, Concrete, pp. 115-130.
- B. Preservation Brief 15, Preservation of Historic Concrete: Problems and General Approaches
8. **March 3** **Non-destructive investigation techniques and tools**
- Joint lecturer: John Fidler, RIBA FRICS Intl. Assoc. AIA, Practice Leader in Preservation Technology, Simpson Gumpertz & Heger
- Overview
Case study: St. Vincent de Paul Church Dome Assessment

9. **March 10** **Mid-term:**
Oral presentation & submission for class project
- 10 minutes maximum for each student, as described in the course assignment
- March 17** **Spring Recess**
No class
10. **March 24** **Structural engineering for historic buildings**
- Guest lecturer: David Cocke, S.E., Principal, Structural Focus
- Homework: Course assignment
11. **March 31** **Assessment and conservation of furniture
and decorative arts**
- at the Gamble House, USC*
 4 Westmoreland Place, Pasadena, CA 91103
- Guest lecturers: Anne Mallek, Curator, the Gamble House
John Griswold, Conservator, Griswold Conservation Associates
12. **April 7** **Stone**
- Guest lecturer: Eric Doehne, Ph.D., Geologist
President, Conservation Sciences, Inc.
O'Brien Distinguished Visiting Professor, Scripps College
Visiting Scientist and Consultant, Huntington Library
- Homework: Assigned reading:
- A. Young, Chapter 5, Masonry, pp. 82-88.
13. **April 14** **HVAC, Plumbing, and Electrical Systems**
- Course assignment Q&A**
- Homework: Course assignment

- 14. April 21 Ceramics & Masonry: Brick, Terra Cotta & Tile**

Joint Lecturer: David Charlebois, California Preservation and Waterproofing

6:00 – 7:30 pm: Walking observation of the historic USC Campus at University Park

Homework: Assigned reading:

 - A. Young, Chapter 5, pp. 79-82, 88-113; Chapter 9, Exterior Wall Cladding, pp.180-184.
 - B. Preservation Brief 2, Repointing Mortar Joints in Historic Brick Buildings
 - C. Preservation Brief 7, The Preservation of Historic Glazed Architectural Terra-Cotta
 - D. Preservation Brief 40, Preserving Historic Ceramic Tile Floors

- 15. April 28 Final Oral Presentation and Critique of Course Project.**
Guest critics and other faculty may be invited.

May 5 Course Project Report Due.

Grading breakdown

Attendance	Homework & Class Participation	Fieldwork	Midterm Oral	Final Oral	Paper: Topic Comprehension	Paper: Knows site	Paper: States Values	Paper: Recommendations	Paper: 20 pp. Min	Biblio & Notes
10%	10%	10%	15%	15%	10%	10%	5%	5%	5%	5%

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the Lecturer as early in the semester as possible. DSP is located in STU 301 and is open 8:30 am - 5:00 pm, Monday through Friday. The phone number for DSP is (213) 7400776.

Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. *Scampus*, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A:

<http://www.usc.edu/dept/publications/SCAMPUS/gov/>.

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at:

<http://www.usc.edu/studentaffairs/SJACS/>.

Attending classes is a basic responsibility of every USC student who is enrolled in courses at the School of Architecture. Although any student should be evaluated primarily on their demonstrated knowledge through project development, papers, quizzes, and exams, the School believes important skills such as verbal presentation, design discussion and articulation of critical issues within each course are equal additional measures of demonstrated knowledge, particularly for professional degree programs. The central learning experience is through direct contact between the student and the faculty which advances a student's understanding through shared exploration. Regular and punctual class attendance is considered an essential part of the learning experience. The lecturer and guest speakers will use the majority of valuable contact time with students to cover material that cannot be covered through readings, out-of-class projects, and other supplemental learning methods.

Each instructor has authority over the precise terms of their own attendance/absence guidelines as outlined in each course syllabus. However, the following points are the School of Architecture's collective terms:

School of Architecture's general attendance guidelines are to allow a student to miss the equivalent of one week of class sessions (three classes if the course meets three times/week, etc) without directly affecting the student's grade and ability to complete the course. If additional absences are required for a personal illness/family emergency, pre-approved academic reason/religious observance, the situation should be discussed and evaluated with the faculty member and appropriate Chair on a case-by-case basis. For each absence over that allowed number, the student's letter grade can be lowered up to one full letter grade. *For this course each such absence, the letter grade will be lowered by 1/3 letter grade.*

Making up late or missed work due to absence or not due to absence is allowed whenever it is reasonable to do so. However, there are circumstances that cannot be made up, such as any potential field exercises, specially arranged field visits, and scheduled guest speaker presentations, and scheduled oral student presentations.

Any false representation of attendance by the faculty or a student is a violation of ethics before the University.

A student not in class within the first 10 minutes is tardy, and any student absent (in any form including sleep, technological distraction, or by leaving mid class for a long bathroom/water break) for more than 1/3 of the class time is fully absent. If arriving late, a student must be respectful of a class in session and do everything possible to minimize the disruption caused by a late arrival. It is always the student's responsibility to seek means (if possible) to make up work missed due to absences, not the instructor's, although such recourse is not always an option due to the nature of the material covered.

Being absent on the day a project, quiz, paper or exam is due can lead to an "F" for that project, quiz, paper or exam or portfolio (unless the faculty concedes the reason is due to an excusable absence for personal illness/family emergency/university approved religious observance). A mid term or final review is to be treated the same as a final exam as outlined and expected by the University.

The faculty is required to notify any student who has missed more than the equivalent of one week of class **IN WRITING, COPYING THE STUDENT SERVICE OFFICE**, that their lack of attendance will now begin to have a significant effect on their grade (even if these absences occur at the end of the semester or if the faculty believes the student has withdrawn due to whatever reason). If the student is near the point of failure due to absences, the faculty is encouraged to notify the student in writing.