SYLLABUS

Date:	January 2, 2017
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 MHC program sequence lists ARCH 549 Fundamentals of Heritage Conservation in the first semester of the first year, and ARCH 551 in the second semester of the first year. The instructor strongly 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
Day and time:	Thursday, 6:00 p.m. to 8:50 p.m.
Instructor:	Peyton Hall, FAIA, Adjunct Professor
Office:	USC provides a shared office and studio table space for the Heritage Conservation faculty office on the third floor of Watt Hall at the southwest corner. The instructor is adjunct and is normally reached an office of private practice: 12 S. Fair Oaks Ave., Suite 200 Pasadena, California 91105
Telephone:	Office: 626.793.2400 x 107 Mobile voice or text: 213.445.5557
Email:	peyton@historicresourcesgroup.com
Office hours:	Class days, from 4:00 - 6:00 p.m., by appointment, at the shared faculty office or heritage conservation studio. By appointment at the Pasadena office, or as arranged. By Email or telephone at your convenience
Blackboard address:	https://blackboard.usc.edu/
TA:	None

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 are practicing professionals whose schedules sometimes change. Students must provide their own transportation to off-campus classes. In addition, the course project will require off-campus visits for observation of a historic site on days and times other than class time, with reasonable effort to accommodate students' availability.

*The required reading for the course is Robert Young's Historic Preservation Technology (New York, John Wiley & Sons). In general, assignments and resource material will be uploaded as PDF files to Blackboard. In general, communications outside of the classroom will be distributed to all students using the Blackboard Email function to address all registered students at their *@usc.edu address. 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.

The Professor is Adjunct faculty and does not have a full time office on campus. Therefore, please use the telephone or E-mail contacts above at any time. The instructor will usually be available in person both before and after class. E-mail and telephone communications are welcomed for discussion of class topics and topics of interest to you, outside of class and following completion of the course.

1. January 12 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's history and condition:
321 W. Chapman Ave., City of Orange
Complex building, program, systems, and materials:
American Cinematheque at the Egyptian Theatre

Homework: Assigned reading (may also be completed after the first class):

A. Standards for Rehabilitation & Guidelines for Rehabilitation Historic Buildings (36 CFR 68: a portion of the Secretary of the Interior's Standards for the Treatment of Historic Properties)
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 19 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 26 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 2** **Metals**

Architectural metals and their characteristics and applications; Galvanic action (problems; protection); special finishes.

Homework: Young, Chapter 7, Architectural Metals, pp. 131-152; Chapter 9, pp. 184-187.

Uploaded to "Blackboard": Metals in America's Historic Buildings, Uses and Preservation Treatments, pp. 134-139.

Recommended reading and additional reference uploaded to Blackboard:

Sembrat, Rabinowitz and Bello, "Investigating and Restoring Decorative Finishes on Architectural Metals," on Blackboard, Journal of Architectural Conservation, November 2012, pp. 27-52.

5. **February 9** **Introduction to Course Assignment**

Tentative: UUC United University Church

Course project will include topic research, materials assessment, and recommendations for treatment.

6. **February 16** **Structural engineering for historic buildings**

Guest lecturer: David Cocke, S.E., Principal, Structural Focus

Homework: Course assignment

7. **February 23** **Stone**

Guest lecturer: Eric Doehne, Ph.D.

Homework: Assigned reading:

A. Young, Chapter 5, Masonry, pp. 82-88.

8. **March 2** **Concrete**

Homework: Assigned reading:

A. Young, Chapter 6, Concrete, pp. 115-130.
B. Preservation Brief 15, Preservation of Historic Concrete: Problems and General Approaches

9.	**March 9**	**Mid-term:** **Oral presentation & submission of paper** **for class project assignment** 10 minutes maximum for each student, as described in the course assignment
	March 16	**Spring Recess** No class
10.	**March 23**	**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
11.	**March 30**	**Non-destructive investigation** Guest lecturer: John Fidler, RIBA FRICS Intl. Assoc. AIA, John Fidler Preservation Technology Inc. Homework: Assigned reading: **http://www.linkedin.com/pub/john-fidler/13/921/794** Preparation for mid-term presentation and paper
12.	**April 6**	**Infrastructure systems** **Site survey case study** Homework: Course assignment Workshop during class: bring your notes & questions
13.	**April 13**	**Conserving Cultural Landscapes** Guest lecturer: Heather Goers, MHP Case study: the Gamble House Cultural Landscape Report

	Homework:	Assigned reading: Preservation Brief 36, "Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes," http://www.nps.gov/tps/how-to-preserve/briefs/36-cultural-landscapes.htm Additional resources: The Cultural Landscape Foundation http://tclf.org/ Library of American Landscape History http://lalh.org/ California Garden & Landscape History Society http://cglhs.org/
14.	**April 20**	**Applied architectural conservation in the Laboratory**
	Guest lecturer:	Anna Zagorski, Senior Project Coordinator, Field Projects Ms. Beril Bicer-Simsir, Associate Scientist David Carson, Laboratory Manager Combination of lecture and lab demonstration focusing on a specific topic.
15.	**April 27**	**Ceramics: Brick, Tile, & Terra Cotta**
	Guest lecturer:	David Charlebois, California Restoration & Waterproofing, Masonry restoration contractor
	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
16.	**May 3**	**Course Assignment Final Paper Due by 5:00 pm.**
17.	**May 4**	**Final Oral Presentation (may meet at an alternative location TBA)**

Grading breakdown by percentage:
Students work will be graded from 0 to 4 based on performance, and grade numbers will be weighted in calculating the course grade. For example, a final paper length of 10 pp. will receive a grade of 2.0; a final paper of 20 or more pages of original material will receive a grade of 4.0 for that category of student work. There may be short quizzes during class on assigned reading material; scores on quizzes will contribute to the "Class Participation" portion of the final grade.

Attend-ance: refer to policy	**Class Partici-pation**	**Quizzes during class**	**Field work**	**Mid-term paper & oral**	**Final Oral**	**Final paper: general compre-hension**	**Final paper: knows site conditions**	**Final paper: states values**	**Final paper: recom-mendations**	**Final paper: Biblio-graphy & Notes**
	5	10	10	20	15	5	10	5	15	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/.

USC's Approved Attendance Guidelines
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 our professional degree programs. In studio courses, the central learning experience is through direct contact between the student and the faculty which advances a student's understanding of architecture through shared exploration. As most all of our enrolled students are completing accredited professional degree programs, regular and punctual class attendance is considered an essential part of satisfying both the NAAB and LAAB accreditation requirements. It is also expected that our faculty 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. As our curriculum is composed of a variety of learning environments, it is important that each instructor has authority over the precise terms of their own attendance policy as outlined in each course syllabus.

USC & ARCH 551 Attendance Policies

1. A student may miss one class session (i.e., the equivalent of one week of class sessions) without directly affecting the student's grade and ability to complete the course.
2. If additional absences are required for a personal illness/family emergency, preapproved academic reason/religious observance, the situation should be discussed with the instructor, who will evaluate it with the Director on a case-by-case basis. Excused absence for personal illness/family emergency will require for the record a written explanation from an MD or a written note from the instructor.
3. For each unapproved absence over one class session, the student's letter grade will be lowered by one letter grade (e.g., from "A" to "B").
4. Any student who is late for the first 1/3 of the class, is absent for any 1/3 of the class, asleep or technologically distracted for any 1/3 of the class, will be marked fully absent without approval. This includes leaving class early for 1/3 or more of the class.
5. The instructor will consider requests to make up work missed due to absences, but that is not always possible because class lectures supplement homework, guest lectures cannot be replicated, and field visits cannot be replicated.
6. Being absent on the day a project, quiz, paper, or exam is due can lead to an "F" for that assignment, unless the instructor pre-approves the absence in evaluation with the Director on a case-by-case basis.
7. Being absent for mid-term or final reviews, and missing the opportunity to present, is equal to missing a final exam. Due to the course schedule and semester schedule, it is difficult or impossible to reschedule missed presentations.
8. Late turn-ins of the final paper will affect the assignment grade, and can lead to an "F" for that assignment if the instructor does not receive the submission in time for grading.
9. The instructor will provide an attendance sign-in sheet for each class meeting in order to document each student's attendance and time of arrival.