

**Department of Civil and Environmental Engineering
CE 617 – Historic Preservation for Civil Engineers**

Summer 2017

Professor Alan Slaughter, P.E., P.P.

Office Hours: Second Floor of Student Center

Mondays and Wednesdays; 4:30 PM – 5:30 PM

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Course Description: This course is designed for students and practicing professionals in civil engineering and architecture. It addresses the many aspects of historical preservation from both an engineering and aesthetics perspective. Course topics include: permits and regulations, an overview of architectural styles, designation of historic structures, past methods of construction, current methods of preservation and the availability of grants and funding. Knowledge gained from the course will be applied directly to course projects involving the evaluation and recommendations needed for the proposed preservation of an existing structure.

Prerequisites: None

Text: Historic Preservation Technology by Robert A. Young, P.E.

Published by: John Wiley & Sons, Inc.

ISBN No. 978-0-471-78836-2

Course Outline

Week / Date Topic Reading / Assignment

Introduction

1/May 22 Begin with the Basics Intro & Ch. 1

2/May 30 Defining Historic Significance, Appendix A

Investigations

3/June 5 Site Investigations Ch. 2, 3

Building Materials

4/June 12	Wood and Masonry	Ch. 4, 5, 13
5/June 19	Concrete and Metals	Ch. 6, 7

Historic Construction

6/June 26	Mid - Term
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Midterm

7/July 3	Methods of Historic Construction and the Design Process	Ch. 17, 18
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Testing and Sampling

8/July 10	Testing and Sampling
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Preservation Methods

9/July 17	Building Fabric	Ch.8, 9,10
10/July 24	Preservation and Repair Methods	Ch. 18, 20
11/July 31	Sustainability Cost Estimates	Ch. 22

Final

12/August 7	Final
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Term Projects

The term project will be selected early in the course. Students will have some leeway in the selection of a project which **may** include any one of the following historic subject types: building, bridge, park, tunnel, road or monument.

The students will be required to prepare portions of a preservation project.

These portions break down as follows:

1. Research of the structure
2. Initial Investigation with proposed sampling and testing
3. Preservation/Restoration Evaluation
4. Construction Recommendations

The term project research, investigation, evaluation and recommendations should be at least 10 written pages long, including drawings and photos.

All papers will be due July 31st.

Homework

Homework will be due the Monday after the week it is assigned. Any late work may be marked down for that reason.

Grading

The grading will be as follows:

25% Mid-term

30% Final

30% Paper and Presentation

15% Homework

Important Notes:

1. The NJIT Honor Code will be upheld in this course. Any violations will be brought to the immediate attention of the Dean of Students.
2. Any modifications or deviations to the syllabus throughout the semester will be made through consultation and agreement with the class.