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.

Course Outline

<table>
<thead>
<tr>
<th>Week / Date</th>
<th>Topic</th>
<th>Reading / Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/May 22</td>
<td>Begin with the Basics</td>
<td>Intro &amp; Ch. 1</td>
</tr>
<tr>
<td>2/May 30</td>
<td>Defining Historic Significance, Appendix A</td>
<td></td>
</tr>
<tr>
<td>Investigations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/June 5</td>
<td>Site Investigations</td>
<td>Ch. 2, 3</td>
</tr>
</tbody>
</table>
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

Midterm

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

Testing and Sampling

8/July 10  Testing and Sampling

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  Ch. 22
Cost Estimates

Final

12/August 7  Final

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.