1. **Department, number, and title of course**

   Department of Civil Engineering, CENG 5109 Civil Engineering Seminar

2. **Required Course**

3. **Course (catalog) description**

   Current and historic topics in various areas of civil engineering. Speakers may include off-campus experts, faculty, and graduate students. Presentation of at least one seminar lecture is required.

4. **Prerequisite(s)**

   Consent of chair of department

5. **Textbook(s) and/or other required material**

   None

6. **Course Objectives**

   The primary purpose of the CENG 5109 elective is to provide the student with an opportunity to learn from experts in the field while accomplishing the following objectives:

   a. Apply the engineering thought process to develop creative solutions for open-ended engineering problems.
   b. Present a high-quality oral presentation.
   c. Prepare for life-long intellectual growth, through self-directed learning.

7. **Topics Covered**

   Project dependent

8. **Class/laboratory schedule, i.e., number of sessions each week and duration of each session**

   LESSONS: Topic dependent  
   LABS: Topic dependent

   Note: Instructor contact time may be more or less than for a more structured course, but the workload (because the course focused on independent learning) is still structured to be commensurate with the number of credits (i.e. 5109 for 1 credit) earned.

9. **Contribution of course to meeting the professional component**

   1.0 Credit Hours (ES= See Note, ED= See Note)

   Note: Depending on the specific content, engineering design versus science credit is variable.
10. **Relationship of course to program outcomes**

The course director’s assessment of how this course contributes to the civil engineering program outcomes is listed below. The following scale is used:
1=No Contribution; 2=Small Contribution; 3=Average Contribution; 4=Large Contribution; 5=Very Large Contribution

<table>
<thead>
<tr>
<th>Program Outcomes</th>
<th>Course Director Assessment</th>
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<tbody>
<tr>
<td>Students who qualify for graduation with a civil engineering masters will demonstrate:</td>
<td></td>
</tr>
<tr>
<td>Have specialized knowledge in an area of civil engineering beyond that normally expected at the undergraduate level.</td>
<td>3</td>
</tr>
<tr>
<td>Are adequately prepared for advanced professional practice.</td>
<td>3</td>
</tr>
<tr>
<td>Completing a thesis or design project address a civil engineering problem using sound engineering principles and techniques.</td>
<td>1</td>
</tr>
<tr>
<td>Solve an engineering problem of importance to the State, the Nation, or the Global community.</td>
<td>1</td>
</tr>
<tr>
<td>Demonstrate the ability for independent life-long learning.</td>
<td>3</td>
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<tr>
<td>Have effective oral, written, and graphical communication skills.</td>
<td>3</td>
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</tbody>
</table>

11. **Person(s) who prepared this description and date of preparation**

Dr. Ronald W. Welch, PE (VA), Professor, 20 October 2008.