1. Course Title:

Senior Project III
MET 495C – 3 Credits
MET Core Program Requirement
Prerequisite: MET 495B. MET 495A,B,C Courses must be taken in sequence.
This is a Technical content course under ABET Criterion 5

2. Faculty Member Information:

Instructor: Charles Pringle (Also Craig Johnson, Roger Beardsley)
Office: Hogue 308pringlec
Phone: 509-963-2437
E-mail: pringlec@cwu.edu

3. Course Description:

The senior project is a capstone course that integrates all the major elements of the MET curriculum in a project related activity. The topic is chosen by the student in concurrence with the instructor and must include elements of planning, design and analysis (Phase I), construction (Phase II) and test and evaluation (Phase III). Collaboration with representatives of industry, government agencies or community institutions is encouraged. As an alternative, it will be possible to select a design study for the senior project for all three quarters, providing it is sufficiently comprehensive and approved by the MET advisor.

4. Textbook and other required materials for the course:

‘Engineering Senior Projects’ by Craig Johnson. Also use any of your MET-related texts, materials and resources

5. Specific Learner and Expressive Outcomes and Assessment Strategies:

<table>
<thead>
<tr>
<th>ABET Outcome Criteria #</th>
<th>Learner Outcomes</th>
<th>Assessment</th>
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<tbody>
<tr>
<td></td>
<td>The student will show their ability to:</td>
<td>Students will be assessed through</td>
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<tr>
<td>3a,b,d,f,g,h,i,j</td>
<td>apply mechanical engineering skills through optimized design, construction, and evaluation of their project.</td>
<td>Project progress reports, documentation, and presentations</td>
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<tr>
<td>3c,d,e,f,g,n</td>
<td>communicate their progress and achievements through meetings, reports, and presentations.</td>
<td>meetings, reports, and presentations</td>
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<tr>
<td>3e,g</td>
<td>apply organizational skills to promote progress, via documentation</td>
<td>Project progress reports and documentation</td>
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6. Course Topics and Schedule:

Week 1     Review construction progress, Description of test plan
Week 2     Four Square presentation on testing plan
Week 3     Testing Progress
Week 4     :Testing Progress
Week 5     Testing Progress
Week 6     Testing Draft Report, Technical Documentation review
Week 7     Report Format: Making an Abstract etc
Week 8     Wrap up any retesting,
Week 9     Presentation expectations
Week 10    Formal presentations to Industrial Advisory Committee et al
Finals: Final version of Project Report due

7. Grading:

Homework (10 points)  40%
Performance Reviews (100 points)  40%
Professionalism/Ethics (20 pts)  20%

A(92-100), A-(90-92), B+(88-90), B(82-88), B-(80-82), C+(78-80), C(72-78), C-(70-72), D+(68-70),
D(62-68), D-(60-62), F(<60)

8. ADA Statement:

Students who have special needs or disabilities that may affect their ability to access information and or material presented in this course are encouraged to contact me or Robert Harden, ADA Compliance Officer, Director, ADA Affairs and Students Assistance on campus at 963-2171 for additional disability related educational accommodations.

Prepared by Roger Beardsley June 25, 2009