SYSE 591 Introduction to Systems Approach/Engineering

1. **Basic Information:**
   a. Course Number: SYSE 591
   b. Course Title: Introduction to Systems Approach/Engineering
   c. Credit Hours: 4
   d. Instructor: William "Ike" Eisenhauer, M.Eng. Sys. Eng., BS Mech. Eng.
   e. Class Location: Online
   f. Class Hours: Online – New "Week" begins on Mondays
   g. Text:

      Systems Engineering Handbook:
      A Process for Developing Systems and Products
      [Martin]
      ISBN 0849378370

   h. Office Hours: By appointment
   i. Phone: 503-680-7653
   j. Email address: wde@pdx.edu or through WEBCT
   k. Mailbox: CECS Dean's Office, 4th Ave. Building Suite 500
   l. Final Exam: Online WebCT Exam – Self Schedule During Exam Week

2. **Course Description**
   a. This course provides the beginning knowledge and skills necessary to engineer complex, multi-disciplinary systems. It serves as a cornerstone course for the Systems Engineering program.
   b. The student will gain interdisciplinary knowledge and skills necessary to:
      i. Define the system life cycle and the particulars of stakeholder involvement
      ii. Cover critical tools and methods for implementing Systems Engineering
      iii. Explain the various structure and tasks of the Systems Engineering process

3. **Specific Goals and Objectives:**
   Upon completion of this course, each student should be able to:
   a. Understand systems engineering as an interdisciplinary process.
   b. Demonstrate the value of systems concepts in the development of products, processes, and services.
   c. Access case studies, templates, and checklists that support the systems engineering approach.

4. **Logistics:**
   Success in this course will require:
   a. Reading and completing weekly assessments by the assigned date
   b. Posting assignment results on, or before, the assigned date
   c. Successful completion of Mid-Term and Final Examinations
   d. Active participation in online discussions in the forums

5. **Metrics for Student Progress**
   a. Total of 300 points
      i. Written Assignments [8] (160 points total)
      ii. Mid-Term Exam (70 points)
      iii. Final Exam (70 points)
   b. Grades will be assigned as follows (this is the minimum guaranteed distribution, the instructor reserves the right to adjust the lower thresholds as needed to ensure adequate representation of effort)
      i. 300-279 : A
      ii. 278-270 : A-
      iii. 269-261 : B+
      iv. 260-249 : B
      v. 248-240 : B-
      vi. 239-231 : C+
      vii. 230-219 : C
      viii. 218-210 : C-
      ix. 209-201 : D+
      x. 200-180 : D
      xi. 179-000 : F
   c. Refer to WebCT for due dates. ***There is a 5 point penalty per day late*.**

6. **Tentative Week Plan [Deliverables are Due by 11PM PST on Last Day of Week]**
   a. Week 1 [Sept 24-Sept 30]: Reading / Written Assignment #1
   b. Week 2: [Oct 1 – Oct 7]: Reading / Written Assignment #2
   c. Week 3: [Oct 8 – Oct 14]: Reading / Written Assignment #3
   d. Week 4: [Oct 15 – Oct 21]: Reading / Written Assignment #4
   e. Week 5: [Oct 22 – Oct 28]: Reading / Mid Term
   f. Week 6: [Oct 29 – Nov 4]: Reading
   g. Week 7: [Nov 5 – Nov 11]: Reading / Written Assignment #5
   h. Week 8: [Nov 12 – Nov 18]: Reading / Written Assignment #6
   i. Week 9: [Nov 19 – Nov 25]: Reading / Written Assignment #7
   j. Week 10: [Nov 26 – Dec 2]: Reading / Written Assignment #8
   k. Week 11: Finals Week