SA475A – Naval Applications of Operations Research   Spring 2014
Asst. Prof. Nelson Uhan

Syllabus

Course description   In this capstone course, midshipmen will apply operations research techniques to Navy-
relevant problems. Midshipmen will work in teams on projects coordinated with the Johns Hopkins
University Applied Physics Laboratory (APL). Midshipmen will present their results in writing and
orally, including a final research report summarizing their project work, and a final oral presentation to
the students and faculty of the mathematics department.

Schedule   This schedule is subject to change. Specific dates for meetings, presentations, and submission due
dates will be given during the semester.

Week	Activities
Understanding the problem and previous related work	
1 1/7 – 1/10	Class logistics, overview of project options, student self-assessments and project presentations Project teams and assignments announced Work on problem statement and literature review
2 1/13 – 1/17	Work on problem statement and literature review Meetings – discussion of background readings
3 1/20 – 1/24	Work on problem statement and literature review **1st draft of problem statement and literature review due** Meetings – feedback on 1st draft of problem statement and literature review
4 1/27 – 1/31	Work on problem statement and literature review **2nd draft of problem statement and literature review due** **Presentations – problem statement and literature review**
Modeling, computation, and analysis	
5 2/3 – 2/7	Meetings – feedback on presentations, starting guidance on modeling, computation, and analysis Work on modeling, computation, and analysis
6 2/10 – 2/14	Work on modeling, computation, and analysis
7 2/17 – 2/21	Work on modeling, computation, and analysis Meetings – progress report
8 2/24 – 2/28	Work on modeling, computation, and analysis
9 3/3 – 3/7	Work on modeling, computation, and analysis Meetings – progress report
10 3/10 – 3/14	Spring Break

Week	Activities
11 3/17 – 3/21	Work on modeling, computation, and analysis
12 3/24 – 3/28	Work on modeling, computation, and analysis Meetings – progress report
13 3/31 – 4/2	Work on modeling, computation, and analysis **1st draft of methodology and results sections due** Meetings – feedback on methodology and results sections

Finishing up the project

Week	Activities
14 4/7 – 4/11	Work on completing the final report and presentation
15 4/14 – 4/18	Work on completing the final report and presentation Meetings – progress report, last-minute questions
16 4/21 – 4/25	**Final presentations**
17 4/28	Wrap up **Final report due**