Reading Assignments - EAE-243a/EME-298 Winter 2015

Week 1: Spacecraft Systems Engineering - Fortescue Chap 1: pp 3-10

NASA Systems Engineering Handbook pp 1-69

Week 2: Spacecraft Environments - Fortescue Chap 2: pp 11-40

NASA Handbook for Designing MMOD Protection: pp 1-28, 33-42

NASA Orbital Debris Engineering Model: skim pp 1-32

Week 3: Dynamics of Spacecraft - Fortescue Chap 3: pp 49-73

Week 4: Celestial Mechanics - Fortescue Chap 4: pp 79-106

Week 5: Mission Analysis - Fortescue Chap 5: all,

Rendezvous - Walter Chap 8

Smartsite Resources/Reading Assignments/Week 5

- History of Rendezvous – NASA JSC
- Safe Trajectories for Autonomous Rendezvous of Spacecraft – MIT
- Video: HowStuffWorks Space Shuttle Rendezvous Video.flv

Week 6: Propulsion Systems - Fortescue Chap 6: all

SMAD 18.1 – 18.6

Week 7: Launch Vehicles - Fortescue Chap 7: except 7.5 and 7.7

Smartsite Resources/Reading Assignments/Week 7

- Propellant Behavior in Launcher Tanks
- Pulsed Plasma Thruster Systems for Spacecraft Attitude Control
- SPT-100 NASA Tests 1993
- Fakel SPT-100
- Goes Propulsion System
- AIAA 2008-4942 Propellant Tank for Tight CG Control

Week 8: Attitude Control – Fortescue Chap 9: all