

ENG ME202 Introduction to Spacecraft Performance

Spring 2010

Prof. Raymond J. Nagem
110 Cummington Street, Room 420
nagem@bu.edu
353-5925

Text: M. D. Griffin and J. R. French, *Space Vehicle Design*, American Institute of Aeronautics and Astronautics, 2nd ed., 2004.

<u>Week Beginning</u>	<u>Topics</u>	<u>Reading</u>
1/11	Space environment	Chs. 1–2, Secs. 3.1–3.5
1/18	Orbital mechanics	Secs. 4.1–4.3
1/25	"	Secs. 4.3–4.7
2/1	Propulsion	Secs. 5.1–5.3
2/8	"	"
2/15	Attitude dynamics	Secs. 7.1–7.4
2/22	"	Secs. 7.1–7.4
3/1	Re-entry dynamics	Secs. 6.1–6.3
3/8	Spring break	
3/15	Re-entry dynamics	Secs. 6.4–6.5
3/22	Structural design	Secs. 8.1–8.4
3/29	Aerospace materials	Secs. 8.5–8.7
4/5	Thermal analysis	Secs. 9.1–9.3
4/12	"	Secs. 9.4–9.5
4/19	Reliability analysis	Secs. 12.1–12.3
4/26	"	Secs. 12.4–12.6

Grading: Three examinations, each worth 20% of final grade.
Homework assignments, together worth 20% of final grade.
Course project, worth 20% of final grade.