

INFORMATION SHEET FOR SPRING 2010

INSTRUCTOR

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TEACHING ASSISTANT

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TEXTBOOK AND REFERENCES

Required: Bruce K. Donaldson, Analysis of Aircraft Structures, 2nd Edition, Cambridge University Press, 2008.

References:

T.H.G. Megson, Aircraft Structures for Engineering Students, 2nd Edition, Halsted Press, 1990.

E.F. Bruhn, Analysis and Design of Flight Vehicle Structures, Jacobs Publishing, 1973.

WEBSITES

The website for the course is on Blackboard: http://blackboard.bu.edu/bin/common/course.pl?course_id=_5385_1 Material for all students will be posted there.

GRADING

Semester project	20%
Weekly homework and quizzes	20%
Midterm 1	30%
Final exam	30%

SYLLABUS

Week Beginning	Topic	Reading
12 Jan	Stress, equilibrium	Secs. 1.1–1.5
18 Jan	Stress, rotation	Secs. 2.1–2.6
	Note:	no class 1/18/10
25 Jan	3D Stress, Strain	Secs. 2.7–2.9 & 3.1–3.6
1 Feb	Strain	Secs. 3.7–3.8 & 4.1–4.5
8 Feb	Torsion	Secs. 12.1–12.6
16 Feb	Torsion	Secs. 13.1–13.6
	Note:	lectures on TW
22 Feb	Material behavior, Anisotropy, Composites	Secs. 6.1–6.6
1 March	Midterm exam, Energy methods	Secs. 15.1–15.2
8 March	Spring Break	
15 March	Energy methods	Secs. 15.1–15.6
22 March	Finite Elements	Secs. 17.1–17.8
29 March	Finite Elements	Secs. 18.1–18.6 & 19.1–19.22
5 April	Thin Plates	Secs. 22.1–22.5
12 April	Thin Plates	Secs. 22.6–22.9
19 April	Elastic Stability	Secs. 23.1–23.3
	Note:	Lectures on W & Th
26 April	Aeroelastic stability	Secs. 23.4–23.7