

# Schedule

## 02)

## Spring 2003 -- ME 221: Statics (section

The following is a **tentative** schedule of topics and book sections for reading. The timing of topics may vary slightly as the term progresses. Homework will be assigned in class. It is your responsibility to make sure you obtain the homework assignments prior to the due date. Homework assignments are due at the **BEGINNING** (see syllabus) of the hour on the due date. The instructor will pull select problems from the assigned homework set and those problems will be graded.

Short quizzes will be given in class and these scores will contribute to your homework grade. Typically quizzes will be unannounced, but they will parallel the homework.

Date	Topic	Text Section
1/6	Syllabus, Newton's Laws of Motion	Ch 1
1/8	Vectors, Vector Addition (2D) – Parallelogram	2.1-2.2
1/10	Vector Addition (2D)– Components	2.1-2.2
1/13	Extension to 3D Space	2.2,2.4-2.5, 2.8
1/15	Vector Addition – Matrix methods	2.4,2.7
1/17	Vector Components – Non-orthogonal Systems	2.2,2.6
1/20	Martin Luther King's Birthday – no lecture	
1/22	Forces and their Characteristics	2.3, 2.11
1/24	Equilibrium of a Particle	2.9-2.12
1/27	MathCAD/Matlab Tutorial & Application	
1/29	<b>Exam #1</b>	
1/31	Rigid Bodies – Moment of a Force End of Tuition Refund Period	3.1-3.3
2/3	Moment of a force about a point	3.4-3.5
2/5	Moment of a force about an axis	3.6-3.7
2/7	Equivalent Force Systems (pt.1)	3.8-3.10
2/10	Equivalent Force Systems (pt.2)	3.8-3.10
2/12	Application – Moment of a Force	
2/14	Centroids, Center of Mass	4.1-4.3
2/17	Centroids of Composite Bodies	4.4-4.5
2/19	Distributed Loads on Beams	4.6-4.7
2/21	Application – Centroids and Distributed Loads	
2/24	<b>Exam #2</b>	
2/26	Second Moment of an Area (pt.1)	9.1-9.4

2/28	Second Moment of an Area (pt.2) Last class before Spring Break	9.5-9.7
3/10	Principal Second Moments of area	9.8-9.10
3/12	Mass Moments of Inertia	9.11
3/14	Equilibrium of Rigid Bodies, Introduction	5.1-5.4
3/17	Equilibrium of Rigid Bodies (2D) – part 1	5.5
3/19	Equilibrium of Rigid Bodies (2D) – part 2	5.5
3/21	Equilibrium of Rigid Bodies (3D)	5.6-5.7
3/24	Application - Equilibrium	
3/26	Internal Forces in Structural Members	7.1-7.2
3/28	Shear and Bending Moments	7.3-7.4
3/31	Beam Equations, Problems	
4/2	<b>Exam #3</b>	
4/4	Analysis of Structures - Method of Joints	6.1-6.5
4/7	Method of Sections	6.6
4/9	Frames and Machines	6.7-6.9
4/11	Friction	8.1-8.2
4/14	Wedges – Screws – Belts – Bearings – Collars	8.3-8.8
4/16	Virtual Work	10.1-10.3
4/18	Virtual Work, cont'd	10.4-10.7
4/21	Final Application (pt. 1)	
4/23	Final Application (pt. 2)	
4/25	Final Review	
5/2	<b>FINAL EXAM</b>	You must take your exam with the correct section