

Fall 92-93

## PHYSICS 115 SYLLABUS

Don. D. Reeder

4287 Chamberlin Hall

Phone 262-8798 e-mail: reeder@wishep.physics.wisc.edu

Week	Date	Text Chpt.	Topic
1	M 11		<i>Labor Day</i>
	W Sep 6	*	Introduction
	F 8	Appendix A,B	Sci. Calc and Kinematics
2	M 11	1	Forces and Kinetic energy
	W 13	1	Potential Energy
	F 15	1	Gravitational Potential Energy
3	M 18	1	Chemical Energy
	W 20	1	Conservation of Energy
	F 22	1,8	Circular motion - flywheel
4	M 25		Problem Session
	W 27		Quiz
	F 29	10	Energy and biology
5	M Oct 2	2*	Fossil Fuels
	W 4	1,3	Heat Energy, Temperature
	F 6	3	Entropy and efficiency
6	M 9	3	Heat engines - Heat pumps
	W 11	6	Transportation of Heat energy
	F 13	1	Electricity
7	M 16	1	Magnetism
	W 18		Quiz
	F 20	1	Electrical machines
8	M 23	1	Circuits
	W 25	8	Transportation and Storage
	F 27	6	Direct Conversion techniques
9	M 30	1	Electromagnetic radiation
	W Nov 1	6	Solar energy
	F 3	6	Techniques for solar energy

\* — handout in class

Week	Date	Text Chpt.	Topic
10	M Nov 6	4	Nuclear reactions
	W 8	5,11	Radiation and man
	F 10	5,11	Radiation and man
11	M 13	4	Reactors
	W 15	4,16	Reactors and Weapons
	F 17	5	Nuclear waste
12	M 20		Fusion hot and cold
	W 22		Future of Nuclear Energy
	F 24		<i>THANKSGIVING Recess</i>
13	M 27		Accidents and Risk assessment
	W 29		Accidents and Risk assessment
	F Dec 1	12	Transportation
14	M 4	7	Sustainable alternatives
	W 6	7	Sustainable alternatives
	F 8	9	Conservation
15	M 11		Energy Policy
	W 13		Summary and Outlook
	F 15		Review for for Final Examination

### Research Paper

- This should be about 10-15 pages (double spaced) with bibliography and correct attribution. Try to be as quantitative as possible (include calculations and/or data)
  - Outline due by November 1
  - Final draft due at or before the Final Examination
- Final Examination Wednesday 20 December (2:45 p.m.)