

**FUEL CELL TECHNOLOGY**  
**Tentative** Course Schedule, MAE 410/510, Spring 2004

Date	Lecture	Text Pages	Topics to be Covered	Homework Assignment	Homework Due Date
1-12-04	1	Chapter 1 Pages 1-24	Introduction of the Course, Course Conduct and Basic Information on Fuel Cell Technology		
1-16-04	2	Ch.2: 25-35, 395-400	Efficiency and Open Circuit Voltage I	Homework # 1	1-26-04
1-23-04	3	Ch. 2: 35-42	Efficiency and Open Circuit Voltage II		
1-26-04	4	Ch. 3: 45-56	Operational Fuel Cell Voltages I	Homework # 2	2-2-04
1-30-04	5	Ch. 3: 56-66	Operational Fuel Cell Voltages II	Project Statement due	
2-2-04	6	Ch. 4: 67-76	PEM Fuel Cells I	Project Assigned Homework # 3	2-9-04
2-6-04	7	Ch. 4: 76-94	PEM Fuel Cells II		
2-9-04	8	Ch. 4: 90-118	PEM Fuel Cells III	Homework # 4	2-16-04
2-13-04	9	Ch. 5: 121-138	Alkaline Electrolyte Fuel Cells		
2-16-04	10	Ch. 6: 141-160	Direct Methanol Fuel Cells	Homework # 5	2-23-04
2-20-04	11	Ch. 7: 207-226	Solid Oxide Fuel Cells for Delphi Tour		
2-23-04	12	Ch. 7: 164-186	Phosphoric Acid Fuel Cells		
2-27-04			Midterm Exam		
3-1-04	13	Ch. 7: 187-207	Solution to Midterm Exam; Molten Carbonate Fuel Cells	Homework # 6	3-8-04
3-5-04	14	Ch. 7: 207-226	Solid Oxide Fuel Cells		
3-8-04	15	Ch. 8: 229-247	Fuels and Fuel Reforming I	Homework # 7	3-22-04
3-12-04		Ch. 8: 248-278	Fuels and Fuel Reforming II		
3-22-04		Ch. 8: 279-304	Fuels and Fuel Reforming III	Homework # 8	3-29-04
3-26-04	16	Shah & Sekulic, Section 3.3 and 3.4	Heat Exchangers, and Thermal Systems		
3-29-04	17	Ch. 9: 309-321	Balance of Plant I	Homework # 9	4-5-04
4-2-04	18	Ch. 9: 321-330	Balance of Plant II		
4-5-04	19	Ch. 10: 331-348	Delivering Fuel Cell Power I	Homework # 10	4-12-04
4-9-04	20	Ch. 10: 349-367	Delivering Fuel Cell Power II		
4-12-04	21		Project Presentation I	Homework # 11	4-19-04
4-16-04	22		Project Presentation II		
4-19-04	23	Ch. 11: 369-389	Fuel Cell Systems		
4-23-04					
4-26-04					
Week of 4/26 or 5/3	18		Final Exam		

**Note:** Read the text material to be covered before coming to the class. It is essential since you will benefit most by first reading the specified material due to a lot of new multidisciplinary concepts.

**The last two lectures are kept open in order to allow some flexibility in the proposed lectures. Hence this schedule will be modified as we go along in the semester.**