

**KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS**  
**ELECTRICAL ENGINEERING DEPARTMENT**

**EE 460 – Power Electronics**

**Tentative Schedule [051]**

DATE	TOPICS	SECTIONS	HW	LABORATORY
<b>Week 1</b> Sept. 10-14	Introduction to Power Electronics & Semiconductor Diodes	2.1, 2.3, 2.4, 2.5, 2.10	Ch. 2-1, 10, 12(b,c,d)	
<b>Week 2</b> Sept. 17-21	Diode Circuit & Rectifiers	3.2, 3.3, 3.4,	Ch 3 1, 5, 7, 9,	
<b>Week 3</b> Sept. 24-28	Diode Circuit & Rectifiers	3.7, 3.10	Ch 3 11, 15, 21	<b>Lab. #1</b> Review: Pspice and Lab Equipments
<b>Week 4</b> Oct. 1-5	Thyristors	7.2, 7.3, 7.7, 7.5, 7.9,7.10	Ch 7 1, 3	<b>Lab. #2</b> Single-phase half-wave rectifier, (Pspice)
<b>Week 5</b> Oct. 8-12	Controlled Rectifiers	10.4	Ch10 1, 2, 7, 8,	Lab #3 Single-phase half-wave rectifier. (Experiment)
<b>Week 6</b> Oct. 15-19 <b>Major - I</b>	Controlled Rectifiers	10.9	Ch 10 22, 23	Lab #4 Three-phase bridge rectifier (Pspice)
<b>Week 7</b> Oct. 22-26	AC Voltage Controllers	11.2, 11.4,	Ch 11 1, 3, 6,	Lab #5 Three-phase bridge rectifier (Experiment)
<b>October 25 "TUESDAY" for dropping courses with W through the Internet</b>				
<b>Eid Al-Fiter Holiday</b>				
<b>Week 8</b> Nov. 12-17	AC Voltage Controllers	11.5, 11.12	Ch 11 8, 9, 28	Lab #6 Characteristic of silicon controlled rectifier (Pspice)
<b>Week 9</b> Nov. 19 – Nov. 23	Power Transistors	4.2, 4.3, 4.7	Ch 4 1, 2, 11	Lab #7 Single-phase half-wave rectifier using SCR (Pspice)
<b>Week 10</b> Nov. 26-30	DC-DC Converters	4.7, 5.2,	Ch 4 2, 3,	Lab #8 Single-phase full-wave ac-voltage controlled (Pspice)
<b>Week 11</b> Dec. 3-Dec. 7	DC-DC Converters	5.3, 5.4	Ch 5 4, 6	Lab #9 Simple Light Dimmer (Experiment)
<b>Week 12</b> Dec. 10 - 14	PWM Inverters	6.2, 6.3, 6.4	Ch 6 2, 3,	Lab #10 Speed Control of Separately Excited Motor (Experiment)
<b>Week 13</b> Dec. 17 – 21 <b>Major-II</b>	PWM Inverters	6.5, 6.6,	Ch 6 4,5,	<b>Review week</b>
<b>Week 14</b> Dec. 24 - 28	PWM Inverters	6.8, 6.10, 6.11	Ch 6 6	<b>Lab Final</b>
<b>Week 15</b> Dec. 31 – Jan. 4	Resonant Pulse Inverters	8.2.1, 8.2.2	Ch 8 1, 3	

