

**2017 ELECTRICAL ENGINEERING: Power and Renewable Energy Track**

**DEGREE REQUIREMENT CHECKSHEET**

**COLLEGE OF ENGINEERING & COMPUTER SCIENCE**

**UNIVERSITY OF CENTRAL FLORIDA**

<b>GENERAL EDUCATION PROGRAM</b>				<b>LOWER AND JUNIOR LEVEL REQUIRED COURSES</b>			<b>SH</b>	<b>Grd</b>	<b>Trans Equiv</b>
* Indicates "C-" minimum required by the Gordon Rule				EGR 1006C Intro to Engr Prof		1		#	
** Indicates minimum "C" or better grade				EGN 1007C Engr Concepts and Methods		1		#	
<b>COMMUNICATION (9 SEM HRS)</b>	<b>SH</b>	<b>Grd</b>	<b>Trans Equiv</b>	STA 3032 Probability & Statistics for Engrs		GEF			
ENC 1101	3	*		PHY 3101 Physics for Engr and Sci III		3			
ENC 1102	3	*		EEL 3926L Junior Design		1			
				EGN 3211 Engineering Analysis & Comp.		3	**		
SPC 1603	3			EEL 3004C Electrical Networks		3	**		
<b>CULTURAL &amp; HISTORICAL (9 SEM HRS)</b>				EEL 3123C Networks and Systems		3	**		
Select 2: AMH 2010, AMH 2020, EUH 2000, EUH 2001, HUM 2211, HUM 2230, WOH 2012, WOH 2022	6	*		EEE 3307C Electronics I		4			
Approved Cultural Foundations course:	3			EEE 3342C Digital Systems		3	**		
<b>SOCIAL FOUNDATION - (6 SEM HRS)</b>				EEL 3801C Computer Organization		4	**		
ANT 2000/ PSY 2012/ SYG 2000	3			EEL 3657 Linear Control Systems		3			
ECO 2013 <i>or</i> ECO 2023	3			<b>JUNIOR LEVEL ELECTIVE COURSES (CHOOSE 2)</b>			<b>SH</b>	<b>Grd</b>	<b>Trans Equiv</b>
<b>SCIENCE - 6 SH</b>				EEL 3470 Electromagnetic Fields		3			
GEO 1200 <i>or</i> GEO 2370 (either GEO is preferred) <i>or</i> BSC 1050C <i>or</i> BSC 1005C <i>or</i> GLY 1030	3			EEL 3552C Signal Analysis & Communications		4			
PHY 2048C Physics I for Engrs	4			EEE 3350 Semiconductor Devices I		3			
<b>MATHEMATICAL - 6 SH</b>				EEL 3290 Global Energy Issues		3			
MAC 2311 Calculus I	4	**		<b>SENIOR LEVEL REQUIRED COURSES</b>			<b>SH</b>	<b>Grd</b>	<b>Trans Equiv</b>
GPA Gen Ed Prog =	38			EEL 4216 Fund. Of Electric Power Systems		3			
<b>ENGINEERING CORE**</b>				EEL 4742C Embedded Systems		3			
MAC 2311 Calculus I	GEF	**		<b>RECOMMENDED SENIOR LEVEL ELECTIVE COURSES</b>			<b>SH</b>	<b>Grd</b>	<b>Trans Equiv</b>
MAC 2312 Calculus II	4	**		<b>(CHOOSE MINIMUM 3 FROM LIST)</b>					
MAC 2313 Calculus III	4	**		EEL 4612C Robust Control		4			
MAP 2302 Differential Equations	3	**		EEL 4750 Digital Signal Processing Fund.		3			
CHS 1440 Chem for Engrs (or CHM 2045C)	4	**		EEL 4294 Introduction to Smart Grids		3			
PHY 2048C Physics I for Engrs	GEF	**		EEL 4205 Electric Machinery		3			
PHY 2049C Physics II for Engrs	4	**		EEL 5185 Systems Identification		3			
<b>SUBTOTAL SEM HRS</b>	<b>19</b>			EEL 5268 Communications and Networking for Smart Grid		3			
				EEL 5291 Distributed Control and Optimization for Smart Grid		3			
				EEL 5173 Linear Systems Theory		3			
				EEL 5XXX Advanced Power Systems Analysis		3			
				EEL 5245 Power Electronics I		3			
				REQUIRED					
				<i>Technical Electives (EEE or EEL 4XXX or 5XXX)</i>		13-15	~		
				EEL 4914 Senior Design I		3			
				EEL 4915L Senior Design II		3			
				<b>SUBTOTAL SEM HRS</b>		<b>71</b>			
				GPA Engr Option =					
				(2.250 minimum)					

\*\* A Grade of C (2.00) or higher required

\* Transfer students please see your faculty advisor before registering for these classes.

**ADVISOR COMMENTS:**

~BS-MS students should choose (3 SH) 5000 level courses as electives.