

Date: 03/13/2014

The following tables indicate the classes meeting the amount of hours and profile requirements for the Electrical Engineering undergraduate course at **EMC/UFG**. The sequence, suggested by the EMC faculty, is distributed within 10 semesters, but the students have a maximum of 18 semesters to complete all classes.

<b>First Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
06	Calculus for Electrical Engineering 1	4	0	60
17	Physics for Electrical Engineering 1	4	0	60
21	Analytic Geometry	4	0	60
03	Algorithms and Programming 1	3	1	60
32	General Chemistry for Electrical Engineering	4	0	60
29	Scientific Methodology	2	0	30
23	Introduction to Electrical Engineering	2	0	30
24	Physics Lab for Electrical Engineering 1	0	1	16
27	General Chemistry Lab for Electrical Engineering	0	1,5	24
<b>Total hours for the first semester</b>				<b>400</b>

<b>Second Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
02	Linear Álgebra	4	0	60
07	Calculus for Electrical Engineering 2	4	0	60
04	Algorithms and Programming 2	3	1	60
20	Functions of Complex Variables	4	0	60
18	Physics for Electrical Engineering 2	4	0	60
25	Physics Lab for Electrical Engineering 2	0	1	16
10	Technical Design (Drafting)	0	4	60
<b>Total hours for the second semester</b>				<b>376</b>

<b>Third Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
14	Differential Equations	4	0	60
08	Calculus for Electrical Engineering 3	4	0	60
30	Signals and Systems	4	0	60
19	Physics for Electrical Engineering 3	4	0	60
28	Mechanics	4	0	60
45	Introduction to Modern (Quantum) Physics	4	0	60
26	Physics Lab for Electrical Engineering 3	0	1	16
<b>Total hours for the third semester</b>				<b>376</b>

Fourth Semester				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
05	Numerical Methods	4	0	60
33	Mechanics of Materials	4	0	60
40	Eletromagnetic Theory	4	0	60
58	Electrical Engineering Materials	4	0	60
34	Linear Systems Analysis	4	0	60
16	Fluid Mechanics and Heat Transfer	4	0	60
35	Electrical Circuits 1	4	0	60
52	Modern (Quantum) Physics Lab for Electrical Engineering	0	1	16
<b>Total hours for the fourth semester</b>				<b>436</b>

Fifth Semester				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
09	Introduction to Environmental Science	4	0	60
31	Probability and Statistics	4	0	60
36	Electrical Circuits 2	4	0	60
62	Feedback Control Systems	4	0	60
60	Waves and Propagation	4	0	60
41	Analog Electronics 1	4	0	60
48	Electrical Circuits Lab	0	2	32
54	Electrical Engineering Materials Lab	0	1	16
<b>Total hours for the fifth semester</b>				<b>408</b>

Sixth Semester				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
38	Electromechanical Energy Conversion 1	4	0	60
42	Analog Electronics 2	4	0	60
64	Electrical Energy Transmission	4	0	60
37	Digital Logic Circuits	4	0	60
43	Safety Engineering	2	0	30
63	Communications Theory	4	0	60
51	Analog Electronics Lab	0	2	32
49	Digital Logic Circuits Lab	0	1	16
56	Feedback Control Systems Lab	0	1	16
<b>Total hours for the sixth semester</b>				<b>394</b>

<b>Seventh Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
46	Introduction to Electrical Power Systems	4	0	60
59	Microprocessors and Microcontrollers	4	0	60
39	Electromechanical Energy Conversion 2	4	0	60
55	Microprocessors and Microcontrollers Lab	0	1	16
50	Electromechanical Energy Conversion Lab	0	2	32
57	Communications Lab	0	1	16
-	Electrical Engineering Elective	4		60
-	Free Elective	4		60
<b>Total hours for the seventh semester</b>				<b>364</b>

<b>Eighth Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
01	Administration Theory	2	0	30
12	Economics	4	0	60
15	Éthics	2	0	30
47	Electrical Installations	4	0	60
53	Electrical Installations Lab	0	2	32
-	Electrical Engineering Elective	4		60
-	Free Elective	4		60
<b>Total hours for the eighth semester</b>				<b>332</b>

<b>Ninth Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
22	Project Management	4	0	60
11	Law for Engineers	4	0	60
13	Engineering Economics	4	0	60
-	Electrical Engineering Elective	4		60
-	Free Elective	5		75
<b>Total hours for the ninth semester</b>				<b>315</b>

<b>Tenth Semester</b>				
Nº	Classes	CHS <sup>1</sup>		CHTS <sup>4</sup>
		THE <sup>2</sup>	PRA <sup>3</sup>	
44	Supervised Professional Training	0	20	300
61	Senior/Capstone Project	0	8	120
<b>Total hours for the tenth semester</b>				<b>420</b>