Mapping of Electrical Engineering Program Outcomes into Engineering Core Courses (modified by AEY Dec. 31, 2004)

Electrical Engineering Outcomes	ENG 100	ENG 101	Math 115	Math 116	Math 215	Math 216	Phys 140	Phys 141	Phys 240	Phys 241	Chem 125	Chem 126	Chem 130
1. An ability to apply knowledge of mathematics, science and engineering		XX	XX	XX	XX	XX	XX		XX				XX
2. Ability to design & conduct experiments, as well as to analyze and interpret data	X							XX		XX	XX	XX	
3. An ability to design a system, component, or process to meet desired needs													
4. Ability to function on multidisciplinary teams	XX												
5. An ability to identify, formulate and solve engineering problems	XX	XX											
6. An understanding of professional and ethical	XX												
7. An ability to communicate effectively	XX												
8. Broad education necessary to understand impact of engineering solutions in society.	X												
9. Recognition of the need for and an ability to engage in life-long learning													
10. Knowledge of contemporary issues													
11. Ability to use the techniques, skills, and modern engineering tools needed for practice	X	XX											
12. Knowledge of probability & statistics, with applications approp. to electrical engineering													
13. Knowledge of mathematics through differential and integral calculus, basic & engineering sciences		X	XX	XX	X		XX	X	XX	X	X	X	X
14. Knowledge of advanced mathematics differential equations, linear algebra & complex variables					X	XX							

XX: strong relationship (significant focus in this area). X: weak relationship (minimal focus in this area).

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Mapping of Program Outcomes into the Electrical Engineering Curriculum 2005 (modified AEY Dec. 31, 2004)

Program Outcomes	06	15	230	270	280	306	311	312	314	320	330	334	353	401	411	413	414	417
1. An ability to apply knowledge of mathematics, science and engineering		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
2. An ability to design and conduct experiments, as well as analyze and interpret data	X	X	X	X			X								X	X		
3. An ability to design a system, component, or process to meet desired needs	X	X	X	X	X		X	X							X	X	X	X
4. An ability to function on multidisciplinary teams							X	X							X	X		X
5. An ability to identify, formulate and solve engineering problems	X	X	X	X	X		X	X							X	X	X	
6. Understanding of professional & ethical respon.																		
7. An ability to communicate effectively								X							X	X		X
8. Broad education necessary to understand impact of engineering solutions in a global / societal context																		
9. A recognition of the need for and an ability to engage in life-long learning																		
10. A knowledge of contemporary issues																		
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	X	X	X	X	X	X	X	X		X	X			X	X	X	X	X
12. Knowledge of probability and statistics, with applications appropriate to electrical engineering	X													X				
13. Knowledge of mathematics through differential and integral calculus, basic and engineering sciences	X	X	X			X	X	X	X	X		X	X	X	X	X		
14. Knowledge of advanced mathematics, including differential equations,linear algebra & complex vars.		X	X			X		X	X		X			X	X			X

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Mapping of Program Outcomes into Electrical Engineering Curriculum 2005 (modified AEY Dec. 31, 2004)

Program Outcomes	20	21	23	25	27	29	30	434	435	438	451	452	455	458	460	461	496
1. An ability to apply knowledge of mathematics, science and engineering	X	X	X			X	X	X	X	X	X	X	X		X	X	
2. An ability to design and conduct experiments, as well as analyze and interpret data			X	X			X			X		X		X			
3. An ability to design a system, component, or process to meet desired needs			X	X	X	X	X			X	X	X		X	X	X	
4. An ability to function on multidisciplinary teams				X	X		X			X		X					X
5. An ability to identify, formulate and solve engineering problems			X	X	X	X	X			X		X			X	X	
6. Understanding of professional & ethical respons.																	X
7. An ability to communicate effectively			X	X	X		X			X		X		X			
8. Broad education necessary to understand impact of engineering solutions in a global / societal context																	X
9. A recognition of the need for and an ability to engage in life-long learning																	X
10. A knowledge of contemporary issues																	X
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
12. Knowledge of probability and statistics, with applications appropriate to electrical engineering													X				
13. Knowledge of mathematics through differential and integral calculus, basic and engineering sciences		X				X					X	X	X		X	X	
14. Knowledge of advanced mathematics, including differential equations, linear algebra & complex vars	X							X	X				X		X	X	

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