

**Table B.6: Mapping of Program Outcomes into the Core Curriculum**

Program Outcomes	Core Courses													
	ENG 100	ENG 101	Math 115	Math 116	Math 214	Math 215	Phys 140	Phys 141	Phys 240	Phys 241	Chem 125/126	Chem 130	HU/ SS	Free Electives
1. apply knowledge of mathematics, science and engineering		XX	XX	XX	XX	XX								
2. an ability to design and conduct experiments, as well as analyze and interpret data	X						XX	XX	XX	XX	XX	XX		
3. an ability to design a system, component, or process to meet desired needs														
4. an 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 responsibility	XX													
7. an ability to communicate effectively	XX													
8. the broad education necessary to understand the impact of engineering solutions in a global/ societal context	X												XX	XX
9. a recognition of the need for and an ability to engage in life-long learning													XX	XX
10. a knowledge of contemporary issues													XX	XX
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	X	XX												
12. competence in a broad base of basic skills													XX	XX

XX: strong relationship (significant focus in this area)

X: some relationship (some focus in this area)

**Table B.7: IOE Courses by Department Educational Outcomes**

**IOE Undergraduate Course Numbers**

<b>Education Outcome</b>	<b>201</b>	<b>202</b>	<b>265</b>	<b>310</b>	<b>316</b>	<b>333</b>	<b>334</b>	<b>366</b>	<b>373</b>	<b>416</b>	<b>421</b>	<b>422</b>	<b>424</b>	<b>425</b>	<b>432</b>	<b>436</b>	<b>438</b>	<b>439</b>	<b>441</b>	<b>447</b>	<b>449</b>	<b>452</b>	<b>453</b>	<b>461</b>	<b>460</b>	<b>463</b>	<b>465</b>	<b>466</b>	<b>474</b>	<b>481</b>	<b>499</b>	
1 Apply math, science, eng.		XX	X	XX	XX	XX	XX	X	X	XX		X			X	X	X	X	XX	X	X	XX	XX	X	XX	X	X	X	X			
2 Experimental design; data analysis	XX	XX	XX		XX	X	XX	X		X		XX	X		XX	XX	XX	XX	XX		X	X	X	XX	XX	XX	XX	XX	XX	XX	X	X
3 Develop integrated systems (people, materials, info, etc.)		XX		XX		XX	X		XX	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	X	XX	XX	XX	X	XX	XX			X	XX	XX
4 Work on teams	XX	XX		XX			XX			XX	XX	XX	XX	XX	XX	X						XX	X	X	XX	X			X	XX	XX	
5 Identify, formulate, solve IOE problems	XX	XX	XX	X	X	XX	XX	XX	XX	XX	X	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
6 Prof./ethical responsibility	XX	XX				XX	XX				X	XX	X	X			XX	XX				X	X		XX	XX				X	X	
7 Communicate effectively	XX	XX		XX			XX				X	XX	XX	X	X	XX	X					X	X	XX	XX	X			XX	X	XX	XX
8 Societal impact of engineering solutions	XX	XX		XX		XX	X				X	XX	X	X		XX	XX	XX				X	X	X		XX		X		X	X	
9 Life-long learning	XX	XX		XX		X	X				X	XX	XX	X	XX	XX	XX	X	XX		X	X	X			X				XX	XX	
10 Know contemporary issues	XX	XX				XX	X				XX	XX	XX	XX	XX		XX	XX	XX	XX	X	X	X	X		XX		X	X	XX	XX	
11 Use updated IOE skills and tools	XX	XX	X	X	X	X	X	XX	XX	XX	XX	X	X	XX	XX	XX	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	X	X