41-06

Engineering Faculty Document No. 41-06
April 3, 2007

COPY

To: The Faculty of the College of Engineering
From: The Faculty of the School of Electrical and Computer Engineering
Subject: Changes in Graduation Requirements for Electrical and Computer Engineering

The Faculty of the School of Electrical and Engineering has approved the following changes in the graduation requirements for the B.S. degree in Electrical and Computer Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

These changes are in response to changes in the First-Year Engineering Program effective for students entering Purdue in the Fall Semester 2006.

Revised Plans of Study for the B.S. degree in Electrical Engineering (the first POS) and for the B.S. degree in Computer Engineering (BSCmpE) option are attached.

The implementation of the first-year program into our curriculum is summarized:

(1) The removal of CHM 116 as part of the first year course requirements, with the addition of a Science Selective (4 credit hours) added to both the BSEE and BSCmpE Plans of Study during the second semester of the first year to provide students with alternatives to CHM 116. Students will now have the option of choosing one of the following: BIOL 110, BIOL 111, CHM 116, PHYS 310, PHYS 322, or PHYS 342.

(2) CS 156 or CS 158 is replaced with CS 159.

(3) PHYS 152 becomes 172. PHYS 152 and PHYS 172 are official university equivalents per the Office of the Registrar and are therefore interchangeable in all cases – anywhere PHYS 172 is listed as a requirement, either course will be accepted. Only PHYS 172 will be officially listed as it is the new requirement.

(4) PHYS 261 is replaced with PHYS 272. PHYS 261 and PHYS 272 are official university equivalents per the Office of the Registrar and are therefore interchangeable in all cases – anywhere PHYS 272 is listed as a requirement, either course will be accepted. Only PHYS 272 will be officially listed as it is the new requirement.

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE ENGINEERING
CURRICULUM COMMITTEE

ECC Minutes #4

Date 10-15-07

Chairman ECC Michael Saltsman


СОЬЛ

Sample Current Plan-of-Study for BSEE

Freshman Year

Semester 1			Semester 2		
ENGR 100	First Year Engr Lectures	1	MA 166	Analytc Geom & Calc II	4
ENGR 126	Engr Prb Solv&Cmp Tool	3	PHYS 152	Mechanics	4
MA 165	Anlytc Geomtry&Calc I	4	CS 158	C Programming	3
CHM 115	General Chemistry	4	CHM 116	General Chemistry	4
ENGL 106	First-Year Composition	4	COM 114	Fundament Of Speech	3
	Semester Credits = 16			*Semester Credits* = 18	

Sophomore Year

Semester 3			Semester 4		
ECE 200	Elec & Comptr Engr Sem	0	ECE 202	Linear Circuit Anly II	3
ECE 201	Linear Circuit Anly I	3	ECE 255	Intr Electron Anly Des	3
ECE 207	Elect Measur Technique	1	ECE 208	Electron Dev & Des Lab	1
MA 261	Multivariate Calculus	4	ECE 270	Intro Digitl Sys Desgn	4
PHYS 261	Electricity and Optics	4	MA 266	Ordinary Differ Equatn	3
GEE	Gen Ed Elective	3	GEE	Gen Ed Elective	3
	Semester Credits = 15			*Semester Credits* = 17	

Junior Year

Semester 5			Semester 6		
ECE 301	Signals And Systems	3	ECE 302	Probabilistic Methods	3
ECE	Adv EE Selective	3	ECE 311	Elec & Magnetic Fields	3
ECE	ECE Elective	1	ECE	Adv EE Selective	3
MA 265	Linear Algebra	3	ECE	ECE Elective (lab)	1
Eng Sci	Engr Science Elective	3	GEE	Gen Ed Elective	3
GEE	Gen Ed Elective	3	Cmpl Ele	Complementary Elective	2
	Semester Credits = 16			*Semester Credits* = 15	

Senior Year

Semester 7			Semester 8		
ECE 400	Elec Engr Undergrd Sem	1	ECE 402D	EE Design Projects	3
ECE	Adv EE Selective (w lab)	4	ECE	ECE Elective	3
ECE	ECE Elective (w lab)	4	GEE	Gen Ed Elective	3
GEE	Gen Ed Elective	3	Cmpl Ele	Complementary Elective	3
Cmpl Ele	Complementary Elective	3			
	Semester Credits = 15			*Semester Credits* = 12	

Total Credits = 124

Sample Proposed Plan-of-Study for BSEE

Freshman Year

Semester 1			Semester 2		
ENGR 100	Fresh Engr Lectures	1	MA 166	Analytc Geom & Calc II	4
ENGR 126	Engr Prb Solv&Cmp Tool	3	PHYS 172	Modern Mechanics	4
MA 165	Anlytc Geomtry&Calc I	4	CS 159	C Programming	3
CHM 115	General Chemistry	4	SCI SEL	Science Selective	4
ENGL 106	First-Year Composition	4	COM 114	Fundament Of Speech	3
	Semester Credits = 16			*Semester Credits* = 18	

Sophomore Year

Semester 3			Semester 4		
ECE 200	Elec & Comptr Engr Sem	0	ECE 202	Linear Circuit Anly II	3
ECE 201	Linear Circuit Anly I	3	ECE 255	Intr Electron Anly Des	3
ECE 207	Elect Measur Technique	1	ECE 208	Electron Dev & Des Lab	1
MA 261	Multivariate Calculus	4	ECE 270	Intro Digitl Sys Desgn	4
PHYS 272	Elect/Magn Interactions	4	MA 266	Ordinary Differ Equatn	3
GEE	Gen Ed Elective	3	GEE	Gen Ed Elective	3
	Semester Credits = 15			*Semester Credits* = 17	

Junior Year

Semester 5			Semester 6		
ECE 301	Signals And Systems	3	ECE 302	Probabilistic Methods	3
ECE	Adv EE Selective	3	ECE 311	Elec & Magnetic Fields	3
ECE	ECE Elective	1	ECE	Adv EE Selective	3
MA 265	Linear Algebra	3	ECE	ECE Elective (lab)	1
Eng Sci	Engr Science Elective	3	GEE	Gen Ed Elective	3
GEE	Gen Ed Elective	3	Cmpl Ele	Complementary Elective	2
	Semester Credits = 16			*Semester Credits* = 15	

Senior Year

Semester 7			Semester 8		
ECE 400	Elec Engr Undergrd Sem	1	ECE 402D	EE Design Projects	3
ECE	Adv EE Selective (w lab)	4	ECE	ECE Elective	3
ECE	ECE Elective (w lab)	4	GEE	Gen Ed Elective	3
GEE	Gen Ed Elective	3	Cmpl Ele	Complementary Elective	3
Cmpl Ele	Complementary Elective	3			
	Semester Credits = 15			*Semester Credits* = 12	

Total Credits = 124

Sample Current Plan-of-Study for BSCmpE

Freshman Year

Semester 1			Semester 2		
ENGR 100	Fresh Engr Lectures	1	MA 166	Analytc Geom & Calc II	4
ENGR 126	Engr Prb Solv&Cmp Tool	3	PHYS 152	Mechanics	4
MA 165	Anlytc Geomtry&Calc I	4	CS 158	C Programming	3
CHM 115	General Chemistry	4	CHM 116	General Chemistry	4
ENGL 106	First-Year Composition	4	COM 114	Fundament Of Speech	3
	Semester Credits = 16			*Semester Credits* = 18	

Sophomore Year

Semester 3			Semester 4		
ECE 200	Elec & Comptr Engr Sem	0	ECE 202	Linear Circuit Anly II	3
ECE 201	Linear Circuit Anly I	3	ECE 255	Intr Electron Anly Des	3
ECE 207	Elect Measur Technique	1	ECE 208	Electron Dev & Des Lab	1
ECE 264	Advanced C Programming	2	ECE 270	Intro Digitl Sys Desgn	4
MA 261	Multivariate Calculus	4	ECE 364	Sftwr Engr Tools Lab	1
PHYS 261	Electricity and Optics	4	MA 266	Ordinary Differ Equatn	3
GEE	Gen Ed Elective	3			
	Semester Credits = 17			*Semester Credits* = 15	

Junior Year

Semester 5			Semester 6		
ECE 301	Signals And Systems	3	ECE 302	Probabilistic Methods	3
ECE 362	Micropro Sys & Intrfac	4	ECE 337	ASIC Design Lab	2
ECE 368	Data Structures	3	ECE	Computer Engr Elective	4
ECE 369	Disc Math For Comp Eng	3	Engr Sci	Engr Science Elective	3
GEE	Gen Ed Elective	3	GEE	Gen Ed Elective	3
	Semester Credits = 16			*Semester Credits* = 15	

Senior Year

Semester 7			Semester 8		
ECE	Adv CmpE (437 or 495S)	4	ECE 400	Elec Engr Undergrd Sem	1
ECE 477E	Dig Systems Sr Project	3	ECE	Adv CmpE (469 or 437)	4
MA 265	Linear Algebra	3	GEE	Gen Ed Elective	3
GEE	Gen Ed Elective	3	Cmpl Ele	Complementary Elective	4
GEE	Gen Ed Elective	3			
	Semester Credits = 16			*Semester Credits* = 12	

Total Credits = 125

Sample Proposed Plan-of-Study for BSCmpE

Freshman Year

Semester 1			Semester 2		
ENGR 100	Fresh Engr Lectures	1	MA 166	Analytc Geom & Calc II	4
ENGR 126	Engr Prb Solv&Cmp Tool	3	PHYS 172	Modern Mechanics	4
MA 165	Anlytc Geomtry&Calc I	4	CS 159	C Programming For Engr	3
CHM 115	General Chemistry	4	SCI SEL	Science Selective	4
ENGL 106	First-Year Composition	4	COM 114	Fundament Of Speech	3
	Semester Credits = 16			*Semester Credits* = 18	

Sophomore Year

Semester 3			Semester 4		
ECE 200	Elec & Comptr Engr Sem	0	ECE 202	Linear Circuit Anly II	3
ECE 201	Linear Circuit Anly I	3	ECE 255	Intr Electron Anly Des	3
ECE 207	Elect Measur Technique	1	ECE 208	Electron Dev & Des Lab	1
ECE 264	Advanced C Programming	2	ECE 270	Intro Digitl Sys Desgn	4
MA 261	Multivariate Calculus	4	ECE 364	Sftwr Engr Tools Lab	1
PHYS 272	Elect/Magn Interactions	4	MA 266	Ordinary Differ Equatn	3
GEE	Gen Ed Elective	3			
	Semester Credits = 17			*Semester Credits* = 15	

Junior Year

Semester 5			Semester 6		
ECE 301	Signals And Systems	3	ECE 302	Probabilistic Methods	3
ECE 362	Micropro Sys & Intrfac	4	ECE 337	ASIC Design Lab	2
ECE 368	Data Structures	3	ECE	Computer Engr Elective	4
ECE 369	Disc Math For Comp Eng	3	Engr Sci	Engr Science Elective	3
GEE	Gen Ed Elective	3	GEE	Gen Ed Elective	3
	Semester Credits = 16			*Semester Credits* = 15	

Senior Year

Semester 7			Semester 8		
ECE	Adv CmpE (437 or 495S)	4	ECE 400	Elec Engr Undergrd Sem	1
ECE 477E	Dig Systems Sr Project	3	ECE	Adv CmpE (469 or 437)	4
MA 265	Linear Algebra	3	GEE	Gen Ed Elective	3
GEE	Gen Ed Elective	3	Cmpl Ele	Complementary Elective	4
GEE	Gen Ed Elective	3			
	Semester Credits = 16			*Semester Credits* = 12	

Total Credits = 125