

To: The Faculty of the College of Engineering

From: The Faculty of the School of Chemical Engineering

Re: Curriculum Change for the B.S. degree in Chemical Engineering

The faculty of the School of Chemical Engineering has approved the following change in curriculum for the B.S.ChE effective for students entering Purdue in the fall semester 2010. This action is now submitted to the Engineering Faculty with a recommendation for approval.

New Requirements: CHE 20500 is to become 4 credit hours incorporating a required one hour recitation each week. In light of this addition, the one credit hour of free elective currently required will be removed from the curriculum.

Reasons: In recent years this course has been structured as a three per week lecture with an optional practice, study, observation hour each week. Given the importance of CHE 20500 as the first CHE course, the faculty feels that all chemical engineering students need the additional time to review the lecture material and to further develop their problem solving skills which will lead to an improved understanding of the material being presented in the lectures.

Plan of Study

	Present		Proposed
FRESHMAN YEAR (First Year Engineering)			
	<u>First Semester</u>		
(4)	CHM 12300 or 11500 ^a	Gen. Chemistry	no change
(4)	ENGL 10600 or 10800(3) ^b	English Comp I	
(1)	ENGR 10000	First Year Engr Lec	
(3)	ENGR 12600	Intro to Engr Prb Solv&Comp	
(4) 16	MA 16500 or 16100 ^c	Geom & Calc I	
	<u>Second Semester</u>		
(4)	CHM 12400 or 11600	Gen. Chemistry	no change
(3)	COM 11400	Fund. of Commun	
(4)	MA 16600 or 16200	Geom & Calc II	
(4) 15	PHYS 17200	Mechanics	

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

ECC Minutes #25
 Date 4/27/10
 Chairman ECC R. Cipia

Present

SOPHOMORE YEAR

Third Semester

(0)	CHE	20000	Chem Engr Seminar
(3)	CHE	20500 ^d	Chemical Engr Calc
(3)	CHM	26100	Organic Chemistry I
(1)	CHM	26300	Organic Chem Lab I
(4)	MA	26100	Multivar Calculus
(3)	PHYS	24100	Electricity & Optics
(3)			Gen-Ed Elective

17

Fourth Semester

(4)	CHE	21100	Chem Engr Thermo
(3)	CHE	32000	Statistical Modeling
(3)	CHM	26200	Organic Chemistry II
(1)	CHM	26400	Organic Chm Lab II
(4)	MA	26200	Liner Algebra & Diff Eq.
(3)			Gen-Ed Elective

18

JUNIOR YEAR

Fifth Semester

(3)	CHE	30600	Staged Separations
(4)	CHE	37700	Momentum Transfer
(3)	CHM	37000	Physical Chemistry
(3)	BIOL	23000	Biology of the Living Cell
(3)	MA	30300	Diff Eqs for Engr

16

Sixth Semester

(0)	CHE	30000	Chem Engr Seminar
(3)	CHE	33000	Prin of Molec Engr
(4)	CHE	34800	Chem Reaction Engr
(4)	CHE	37800	Heat & Mass Transfr
(3)			Gen-Ed Elective
(3)			Engineering Elective

17

SENIOR YEAR

Seventh Semester

(1)	CHE	40000	Professional Guidance
(3)	CHE	45600	Process Dyn & C'trol
(3)	CHE	44900	Design + Cost Analysis
(3)			Gen-Ed Elective
(3)			CHE Elective
(3)			Technical Elective

16

Proposed

(0)	CHE	20000	Chem Engr Seminar
(4)	CHE	20500 ^d	Chemical Engr Calc
(3)	CHM	26100	Organic Chemistry I
(1)	CHM	26300	Organic Chem Lab I
(4)	MA	26100	Multivar Calculus
(3)	PHYS	24100	Electricity & Optics
(3)			Gen-Ed Elective

18

no change

no change

no change

no change

Eighth Semester

(4) CHE 43500 Chem Engr Lab
 (2) CHE 45000 Design...Process Sys
 (3) Gen-Ed Elective
 (3) Gen-Ed Elective
 (3) CHE Elective
 (1) Free Elective
 16
 Total: 131

(4) CHE 43500 Chem Engr Lab
 (2) CHE 45000 Design...Process Sys
 (3) Gen-Ed Elective
 (3) Gen-Ed Elective
 (3) CHE Elective
 15
 Total: 131

Footnotes:**Present**

- a ChE prefers that students take the CHM 12300/12400 sequence. Students who have taken CHM 11500/11600 will also be accepted into the School of Chemical Engineering.
- b Students who complete ENGL 10800 will need 1 free elective hour in addition to the stated requirements
- c The MA 16500/16600 (4 cr. each) sequence is preferred; however, the MA16100/16200 (5 cr. each) sequence may be taken. If MA 16100 and/or 16200 is taken, these courses will be accepted as only 4 credit hours each toward meeting the graduation requirements for ChE.
- d A "C" or better must be earned in CHE 20500 to continue to enroll in CHE courses.

Proposed

- a ChE prefers that students take the CHM 12300/12400 sequence. Students who have taken CHM 11500/11600 will also be accepted into the School of Chemical Engineering.
- b Students who complete ENGL 10800 will need 1 free elective hour in addition to the stated requirements
- c The MA 16500/16600 (4 cr. each) sequence is preferred; however, the MA16100/16200 (5 cr. each) sequence may be taken. If MA 16100 and/or 16200 is taken, these courses will be accepted as only 4 credit hours each toward meeting the graduation requirements for ChE.
- d A "C" or better must be earned in CHE 20500 to continue to enroll in CHE courses.

A Varma

A. Varma, Head
 School of Chemical Engineering
 2/11/10