

TO: The Faculty of the College of Engineering

FROM: The Davidson School of Chemical Engineering

RE: Change in Courses Accepted and Credits for Math Selectives

The faculty of the Davidson School of Chemical Engineering has approved the following addition of courses to the math selective options for our students. They also have approved a change in the required amount of credits for the Math Selective I requirement. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From:**Math Track 1:**

- Math Selective I (4 credits) MA 265 (3cr) Linear
- Math Selective II (3 credits) MA 266 (3cr) Diff Eq

Math Track 2:

- Math Selective I (4 credits) MA 262 (4cr) Linear & Diff Eq
- Math Selective II (3 credits) MA 303 (3cr) Diff Eq/Partial Diff Eq or MA 304 (3cr) Diff Eq & Analysis or MA 514 (3cr) Numerical Analysis or ME 581 (3cr) Numerical Methods

To:**Math Track 1:**

- Math Selective I (3 credits) MA 265 (3cr) Linear
- Math Selective II (3 credits) MA 266 (3cr) Diff Eq

Math Track 2:

- Math Selective I (3 credits) MA 262 (4cr) Linear & Diff Eq
- Math Selective II (3 credits) MA 303 (3cr) Diff Eq/Partial Diff Eq or MA 304 (3cr) Diff Eq & Analysis or MA 514 (3cr) Numerical Analysis or ME 581 (3cr) Numerical Methods

Math Track 3:

- Math Selective I (3 credits) MA 351 (3cr) Linear Algebra
- Math Selective II (3 credits) MA 366 (3cr) Diff Eq

Reason: At the recommendation of the Math Department, we have added Math Track 3 to provide more flexibility for students who are pursuing a dual degree or minoring in Math. When evaluating this new track, we have also opted to change the required credits from 4 to 3 required credits for Math Selective I altering our previously approved EFD 44-12. Changing this requirement to three credits allows consistency for those who opt to take the 3 credit hour course within each Math Track Option and does not penalize these students for being 1 credit short of the stated requirement by selecting a 3 credit hour course. The credit in excess will be moved to Spring 3rd Year in anticipation of EFD 40-17 requesting CHE 30000 ChE Junior Seminar to now be 1 credit hour.



David Corti, Executive Officer

For Sangtae Kim, Jay and Cynthia Ihlenfeld Head
School of Chemical Engineering

Current Program Requirements:

Fall 1st Year

(4cr) MA 16500 Analytic Geometry & Calculus I
(4cr) CHM 11500 General Chemistry I
(3cr) Written Communication
(2cr) ENGR 13100 Transforming Ideas to Innovation I
13 Credits

Spring 1st Year

(4cr) MA 16600 Analytic Geometry & Calculus II
(4cr) CHM 11600 General Chemistry II
(4cr) PHYS 17200 Modern Mechanics OR ENGR 16200
Honors Creativity and Innovation in Engineering Design II
(3cr) Oral Communication
(2cr) ENGR 13200 Transforming Ideas to Innovation II
17 Credits

Fall 2nd Year

(1cr) CHE 20000 ChE Sophomore Seminar
(4cr) CHE 20500 ^{CC} ChE Calculations
(3cr) CHM 26100 Organic Chemistry I
(1cr) CHM 26300 Organic Chemistry Laboratory I
(3cr) MA 26100 Multivariate Calculus
(3cr) PHYS 24100 Electricity & Optics
(3cr) General Education Elective I: Humanities
19 Credits

Spring 2nd Year

(4cr) CHE 21100 ^{CC} Intro to ChE Thermodynamics
(3cr) CHE 32000 ^{CC} Statistical Modeling & Quality
Enhancement
(3cr) CHM 26200 Organic Chemistry II
(1cr) CHM 26400 Organic Chemistry Laboratory II
(4cr) Math Selective I
(3cr) General Education Elective II: BSS
18 Credits

Fall 3rd Year

(3cr) CHE 30600^{CC} Design of Staged Separation
Processes
(4cr) CHE 37700 ^{CC} Momentum Transfer
(3cr) CHM 37000 Physical Chemistry
(3cr) Math Selective II
(3cr) Biology Selective
16 Credits

Spring 3rd Year

(0cr) ChE Junior Seminar
(4cr) CHE 37800 ^{CC} Heat & Mass Transfer
(4cr) CHE 34800 ^{CC} Chemical Reaction Engineering
(3cr) Technical Selective
(3cr) Engineering Selective
(3cr) General Education Selective III: STS
17 Credits

Proposed Program Requirements:

Fall 1st Year

Same
Same
Same
Same
Same

Spring 1st Year

Same
Same
Same
Same
Same
Same
Same

Fall 2nd Year

Same
Same
Same
Same
Same
Same
Same
Same

Spring 2nd Year

Same
Same
Same
Same
Same
(3cr) Math Selective I
Same
17 Credits

Fall 3rd Year

Same
Same
Same
Same
Same
Same

Spring 3rd Year

(1cr) ChE Junior Seminar
Same
Same
Same
Same
Same
18 credits

Fall 4th Year

(1cr) CHE 40000 ChE Senior Seminar
(3cr) CHE 45600 Process Dynamics & Control
(4cr) CHE 43500 ChE Laboratory
(3cr) CHE 42000 Process Safety Management
(3cr) General Education Elective IV
14 Credits

Spring 4th Year

(4cr) CHE 45000 Design & Analysis of Processing
Systems
(3cr) Chemical Engineering Selective
(3cr) Engineering Selective
(3cr) General Education Elective V
(3cr) General Education Elective VI
16 Credits

Note

2.0 Graduation GPA required for Bachelor of Science degree.

Students must earn a "C" or better in CHE 20500 to enroll in any other CHE course.

Students must earn a "C-" or better in CHE 21100, 30600, 32000, 34800, 37700, 37800 to enroll in upper level CHE courses.

130 semester credits required for Bachelor of Science degree in Chemical Engineering.

Students may take General Education Elective IV, V, and VI for a letter grade or pass/no pass option.

3 credits of CHE 41100, 41200, 49800 or 49900 may be used to complete the Chemical Engineering Selective.

3 credits of CHE 41100, 41200, 49800, or 49900 may be used to complete the Engineering or Technical Selective.

Degree Requirement

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Critical Course

The ^{CC} course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Fall 4th Year

Same
Same
Same
Same
Same
Same

Spring 4th Year

Same (4cr)
Same
Same
Same
Same
Same

Note

Same

Degree Requirement

Same

Critical Course

Same