# Chemical Engineering Selectives

**PURDUE**
U N I V E R S I T Y

Select course for each requirement

## Biology Selective (3 credits)
|  | (3) | BIOL 23000 Biology of the Living Cell *(CHM 11600 & MA 16200)* |
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|  | (3) | BIOL 23100 Biology III: Cell Structure and Function *(BIOL 11100 & CHM 11600)* |
|  | (3) | CHM 33900: Biochemistry: A Molecular Approach *(CHM 26200)* |
|  | (3) | CHM 53300 Introductory Biochemistry *(Junior Classification, CHM 26200, CHM 32100)* |
|  | (3) | BCHM 30700 Biochemistry *(CHM 26200)* |
|  | (3) | BCHM 56100 General Biochemistry I *(Sophomore 45-59 Classification,  CHM 26200)* |

## Chemical Engineering Selective (3 credits)
|  | (3) | ABE 58000 Process Engineering of Renewable Resources |
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|  | (3) | CHE 33000 Principles of Molecular Engineering *(CHE 21100)* |
|  | (1-3) | CHE 41100  ChE Research *(Junior Classification, Instructor Permission)* |
|  | (1-3) | CHE 41200  ChE Design Research Problems *(Junior Classification, Instructor Permission)* |
|  | (3) | CHE 44200 Chemistry and Engineering of High Polymers *(CHM 26200 & CHM 37000)* |
|  | (3) | CHE 46100 Biomedical Engineering |
|  | (3) | CHE 46300 Applications of ChE Principles *(CHE 37800)* |
|  | (3) | CHE 49700 Course Titles Vary |
|  | (3) | CHE 49800 Undergrad Thesis Research I  *(Instructor Permission & Admission to CHE Honors Program)* |
|  | (3) | CHE 49900 Undergrad Thesis Research II *(Instructor Permission & Admission to CHE Honors Program)* |
|  | (3) | Any CHE 500 level course |

**\*Students cannot earn credit in both CHE 52500 and ABE 58000**
**\*CHE offers multiple CHE 49700 & 59700 courses which can be identified by course title – refer to the Schedule of Classes for current offerings**
**\*CHE 49700 Chemical Engr Study Abroad does not count for CHE Elective – rather a Technical Selective or General Education Elective**

## Engineering Selective (6 credits)
|  | (3) | CHE 40100 Co-Op Seminar II *(Co-Op Students only)* |
| --- | --- | --- |
|  | (3) | Any Chemical Engineering Selective |
|  | (3) | Any AAE, ABE, BME, CE, CEM, ECE, IE, MSE, ME AND NUCL course  *(Must meet pre-req listed in MyPurdue to enroll)* |

**\*The following courses DO NOT count in CHE: ABE 20100, 21000, 30800, 37000, IE 23000, 33000 and ME 30900, 35100**

## Math Selective (6-7 credits)
|  | (3) | Math Selective I: * MA 26500 Linear Algebra *( MA 26100 Minimum Grade of C-)* |
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|  | (4) | Math Selective II: *MA 36600 Ordinary Differential Equations *(MA 26100 & 26500 Minimum Grade of C-)* |
|  | (3) | MA 26600 Ordinary Differential Equations *(MA 26100 Minimum Grade of C-)* |

OR

|  | (4) | Math Selective I: MA 26200 Linear Algebra and Diff Equations *(MA 26100 Minimum Grade of C-)* |
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|  | (3) | Math  Selective II: MA 30300  Differential Equations and Partial Differential Equations *(MA 26200)* |
|  | (3) | MA 30400 Differential Equations and Analysis of Nonlinear Systems *(MA 26500 & 26600/36600)* |
|  | (3) | MA 51400 Numerical Analysis *(Junior Classification)* |
|  | (3) | ME 58100 Numerical Methods in Mechanical Engineering *(Junior Classification, ME 31500 & 35200 )* |

**\*Suggested courses for students pursuing a minor or dual major in math**

## Technical Selective (3 credits)
|  | (3) | BCHM – Any biochemistry course excluding BCHM 307 & 56100 if used for Biology Selective |
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|  | (3) | BIOL – Any biology course excluding 11000, 13500, 14600 and 14700 |
|  | (3) | CHE 49700 Chemical Engr Study Abroad |
|  | (3) | CHM 22400 Intro to Quantitative Analysis *(CHM 11600)* |
|  | (3) | CHM 24100 Intro to Inorganic Chemistry |
|  | (4) | CHM 32100 Analytical Chemistry I *(CHM 11600)* |
|  | (4) | CHM 32300 Analytical Chemistry I *(CHM 11600)* |
|  | (3) | CHM 33300 Principles of Biochemistry *(CHM 26200)* |
|  | (3) | CHM 34200 Inorganic Chemistry |
|  | (4) | CHM 42400 Analytical Chemistry *(CHE 21100 & CHM 37000)* |
|  | (3) | CHM – Any chemistry course above 42400 |
|  | (3) | CS – Any computer science course |
|  | (3) | EAPS – Any Earth and Atmospheric Science course |
|  | (3) | EPCS – Any 3 credit hours of Epics |
|  | (3) | Engineering Selective – Any Engineering Selective |
|  | (3) | GEP – Any 3 credit hours of Global Engineering Programs 20000 and above |
|  | (3) | MGMT 20000 Introductory Accounting or MGMT 20010 Business Accounting |
|  | (3) | MGMT 24300 Minorities in Management |
|  | (3) | MATH – MA 30100, 30800, 34100, 35300, 36200, 37000 and any course above 37300 |
|  | (3) | IPPH 36200 Basic Pharmaceuticals |
|  | (3) | IPPH 56200 Intro to Pharma Manufacturing Processes |
|  | (3) | PHAD Food and Drug Law I |
|  | (3) | PHYS – Any physics course 30000 or above |
|  | (3) | STAT – Any statistic course 51100 or above |

**Prerequisites are listed in *italics*.**