Department of Chemical Engineering
College of Engineering
Imam Mohammad Ibn Saud Islamic University
Riyadh, Kingdom of Saudi Arabia

Chemical Engineering Program [Required Credits = 206]

University Courses	Math. & Basic Sciences	Engineering Fundamentals	Engineering Depths
19 Credits	60 Credits	19 Credits	108 Credits

FIRST YEAR (FRESHMAN)
FALL(1) WINTER(2) SPRING(3)

***** 1001 [2]** Univ Elective 1

***** 1001 [2]** Univ Elective 2

***** 1001 [2]** Univ Elective 3

ENGL 1120 [4] Technical Writing in English

MATH 1115 [5] Calculus I
CO: MATH 1122 Or MATH 122

CS 1108 [4] Computer Programming
CO: MATH1115 Or MATH105

MATH 1122 [5] Pre-Calculus

PHYS 1117 [4] Physics I

MATH 1116 [5] Calculus II
PRE: MATH 1115 Or MATH 115

PHYS 1119 [1] Physics I Lab
PRE: PHYS 1117 Or PHYS 117

PHYS 1118 [4] Physics II
PRE: PHYS1117, PHYS1119 or PHYS 117, PHYS 119

GE 1103 [4] Engineering Graphics and Design

CHEM 1104 [4] General Chemistry

PHYS 1120 [1] Physics II Lab
PRE: PHYS 1117, PHYS 1119 Or PHYS 117, PHYS 119 Or PHYS 1118, PHYS 118

CHEM 1105 [1] General Chemistry Lab
CO: CHEM 1104 Or CHEM 104

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SECOND YEAR (SOPHOMORE)
FALL(4) WINTER(5) SPRING(6)

STAT 1215 [4] Probability and Statistics for Engineers
PRE: MATH 1115 Or MATH 115

***** 1001 [2]** Univ Elective 4

***** 1001 [2]** Univ Elective 5

GE 1201 [5] Statics
PRE: MATH 1116, PHYS 1117

MATH 1207 [5] Calculus III
PRE: MATH 1116 Or MATH 116

MATH 1236 [4] Mathematical Methods for Engineers
PRE: MATH 1207, MATH 1228 Or: MATH 207, MATH 228

ChE 1211 [5] Principles of ChEm. Eng. I
PRE: CHEM 1104, MATH 1115

MATH 1228 [4] Linear Algebra & Ordinary Differential Equations
PRE: MATH 1116 OR: MATH 116

ChE 1222 [4] Fluid Mechanics
PRE: MATH 1207, ChE 1211, GE 1201

ChE 1241 [4] Material Sci. and Eng.
PRE: CHEM 1104

ChE 1212 [3] Principles of ChEm. Eng. II
PRE: ChE 1211, MATH 1116

ChE 1221 [4] ChEm. Eng. Thermodynamics I
PRE: ChE 1211

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THIRD YEAR (JUNIOR)
FALL(7) WINTER(8) SPRING(9)

***** 1001 [2]** Univ Elective 6

***** 1001 [2]** Univ Elective 7

***** 1001 [2]** Univ Elective 8

MATH 1346 [4] Numerical Analysis
PRE: MATH 1236, CS 1108 Or MATH 236, CS 108

CHEM 1301 [4] Organic Chemistry
PRE: CHEM 1104

ChE 1325 [5] Unit Operations
PRE: ChE 1326

ChE 1321 [4] Chem. Eng. Thermodynamics II
PRE: ChE 1212, ChE 1221, MATH 1236

CHEM 1302 [1] Organic Chemistry Lab
CO: CHEM 1301

ChE 1311 [4] Chemical Reaction Eng.
PRE: ChE 1321, MATH 1346

ChE 1323 [4] Heat Transfer II
PRE: ChE 1322, GE 1103

ChE 1328 [5] Separation Processes
PRE: ChE 1326

ChE 1322 [4] Heat Transfer I
PRE: ChE 1222, MATH 1207

ChE 1326 [4] Mass Transfer
PRE: ChE 1322

ChE 1327 [2] Fluid Mechanics & Heat Transfer Lab
CO: ChE 1323

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FOURTH YEAR (SENIOR)
FALL(10) WINTER(11) SPRING(12)

GE 1403 [4] Engineering Economy
PRE: MATH 1236

ChE 1461 [5] Chemical Processes and Plant Design
PRE: ChE 1325, ChE 1328, ChE 1241

GE 1302 [2] Professional Ethics for Engineers

CHE 1481 [4] BioChEmical Eng.
PRE: ChE1311

ChE 1462 [4] Process Synthesis & Modeling
PRE:ChE 1328, GE 1403

ChE 1493 [4] Graduation Project I
PR: ChE1461

ChE 1431 [4] Process Control
PRE: MATH 1236, ChE 1311 ChE 1328

ChE 1463 [2] Environmental & Safety Management
CO: ChE 1461

ChE 1454 [4] Petroleum Refining
PRE: ChE1328, CHEM1301

ChE 1421 [2] Unit Operations & Sep. Processes Lab
PRE: ChE 1325, ChE 1328

ChE 1432 [2] Reaction Eng. & Process Control Lab
PRE: ChE 1311, ChE 1431

ChE 1451 [4] Petrochemicals
PRE: ChE1328, CHEM1301

ChE 15 [4]** Elective I
PRE: ChE 1325, ChE 1328

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FIFTH YEAR
FALL(13) WINTER(14)

ChE 1594 [4] Graduation Project II
PRE: ChE1493

ChE 15 [4]** Elective II
PRE: ChE 1325, ChE 1328

ChE 1595 [4] Graduation Project III
PRE: ChE1594

ChE 15 [4]** Elective III
PRE: ChE 1325, ChE 1328

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GE 1599 Engineering Training [0]

No. of Courses / Credits each Trimester: