SCHEME OF STUDIES
INDUSTRIAL CHEMISTRY

Batch 2016-17
FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
SPRING	CY-113 Inorganic Chemistry-I	3	0	3
	CY-114 Organic Chemistry-I	3	0	3
	CY-118 Industrial Chemistry Lab-I	0	1	1
	HS-104 Functional English	3	0	3
	PH-123 General Physics-I	2	1	3
	MT-173 Calculus	3	0	3
FALL	CY-120 Analytical Chemistry-I	3	0	3
	CY-117 Physical Chemistry-I	3	0	3
	CY-119 Industrial Chemistry Lab-II	0	1	1
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	CT-158 Fundamental of Information Technology	2	0	2
	HS-105 Pakistan Studies OR			
	HS-127 Pakistan Studies (Foreigners)	2	0	2
	PH-124 General Physics-II	2	1	3

Batch 2017
FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 17-18	CY-113 Inorganic Chemistry-I	3	0	3
	CY-114 Organic Chemistry-I	3	0	3
	CY-118 Industrial Chemistry Lab-I	0	1	1
	HS-104 Functional English	3	0	3
	PH-123 General Physics-I	2	1	3
	MT-173 Calculus	3	0	3
SPRING 2018	CY-120 Analytical Chemistry-I	3	0	3
	CY-117 Physical Chemistry-I	3	0	3
	CY-119 Industrial Chemistry Lab-II	0	1	1
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	CT-158 Fundamental of Information Technology	2	0	2
	HS-105 Pakistan Studies OR			
	HS-127 Pakistan Studies (Foreigners)	2	0	2
	PH-124 General Physics-II	2	1	3
	HS-220 Chinese Language-I	**NC**		

Batch 2018
FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2018	CY-113 Inorganic Chemistry-I	3	0	3
	CY-114 Organic Chemistry-I	3	0	3
	CY-118 Industrial Chemistry Lab-I	0	1	1
	HS-104 Functional English	3	0	3
	PH-123 General Physics-I	2	1	3
	MT-173 Calculus	3	0	3
SPRING 2019	CY-120 Analytical Chemistry-I	3	0	3
	CY-117 Physical Chemistry-I	3	0	3
	CY-119 Industrial Chemistry Lab-II	0	1	1
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	CT-158 Fundamental of Information Technology	2	0	2
	HS-105 Pakistan Studies OR			
	HS-127 Pakistan Studies (Foreigners)	2	0	2
	PH-124 General Physics-II	2	1	3
	HS-220 Chinese Language-I	NC		

Batch 2019
FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2019	CY-113 Inorganic Chemistry-I	3	0	3
	CY-114 Organic Chemistry-I	3	0	3
	CY-118 Industrial Chemistry Lab-I	0	1	1
	HS-104 Functional English	3	0	3
	PH-123 General Physics-I	2	1	3
	MT-173 Calculus	3	0	3
SPRING 2020	CY-120 Analytical Chemistry-I	3	0	3
	CY-117 Physical Chemistry-I	3	0	3
	CY-119 Industrial Chemistry Lab-II	0	1	1
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	CT-158 Fundamental of Information Technology	2	0	2
	HS-105 Pakistan Studies OR			
	HS-127 Pakistan Studies (Foreigners)	2	0	2
	PH-124 General Physics-II	2	1	3
	HS-220 Chinese Language-I	NC		

Batch 2020
FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2020	CY-113 Inorganic Chemistry-I	3	0	3
	CY-114 Organic Chemistry-I	3	0	3
	CY-118 Industrial Chemistry Lab-I	0	1	1
	HS-104 Functional English	3	0	3
	PH-123 General Physics-I	2	1	3
	MT-173 Calculus	3	0	3
SPRING 2021	CY-120 Analytical Chemistry-I	3	0	3
	CY-117 Physical Chemistry-I	3	0	3
	CY-119 Industrial Chemistry Lab-II	0	1	1
	EE-119 Fundamentals of Electrical Engineering	3	1	4
	CT-158 Fundamental of Information Technology	2	0	2
	HS-105 Pakistan Studies OR			
	HS-127 Pakistan Studies (Foreigners)	2	0	2
	PH-124 General Physics-II	2	1	3
	HS-220 Chinese Language-I	NC		
	HS-200 Community Service	NC		

Batch 2016-17
SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 17-18	CY-205 Inorganic Chemistry-II	3	0	3
	CY-208 Organic Chemistry-II	3	0	3
	CY-206 Industrial Chemistry Lab-III	0	1	1
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior (for Non-Muslim)			
	MT-223 Ordinar Differential Equations & Fourier Series	3	0	3
	MT-331 Probability & Statistics	3	0	3
	CT-153 Programming Languages	2	1	3
SPRING 2018	CY-209 Analytical Chemistry-II	3	0	3
	CY-210 Physical Chemistry-II	3	0	3
	CY-207 Industrial Chemistry Lab-IV	0	1	1
	HS-201 Oral Communication	2	1	3
	CH-202 Fluid Mechanics-I	3	1	4
	EL-102 Basic Electronics	3	1	4

Batch 2017
SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2018	CY-205 Inorganic Chemistry-II	3	0	3
	CY-208 Organic Chemistry-II	3	0	3
	CY-206 Industrial Chemistry Lab-III	0	1	1
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior (for Non-Muslim)			
	MT-223 Ordinar Differential Equations & Fourier Series	3	0	3
	MT-331 Probability & Statistics	3	0	3
	CT-153 Programming Languages	2	1	3
	HS-221 Chinese Language-II	**NC**		
SPRING 2019	CY-209 Analytical Chemistry-II	3	0	3
	CY-210 Physical Chemistry-II	3	0	3
	CY-207 Industrial Chemistry Lab-IV	0	1	1
	HS-201 Oral Communication	2	1	3
	CH-202 Fluid Mechanics-I	3	1	4
	EL-102 Basic Electronics	3	1	4

Batch 2018
SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2019	CY-205 Inorganic Chemistry-II	3	0	3
	CY-208 Organic Chemistry-II	3	0	3
	CY-206 Industrial Chemistry Lab-III	0	1	1
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior (for Non-Muslim)			
	MT-223 Ordinar Differential Equations & Fourier Series	3	0	3
	MT-331 Probability & Statistics	3	0	3
	CT-153 Programming Languages	2	1	3
	HS-221 Chinese Language-II	NC		
SPRING 2020	CY-209 Analytical Chemistry-II	3	0	3
	CY-210 Physical Chemistry-II	3	0	3
	CY-207 Industrial Chemistry Lab-IV	0	1	1
	HS-201 Oral Communication	2	1	3
	CH-202 Fluid Mechanics-I	3	1	4
	EL-102 Basic Electronics	3	1	4

Batch 2019
SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2020	CY-205 Inorganic Chemistry-II	3	0	3
	CY-208 Organic Chemistry-II	3	0	3
	CY-206 Industrial Chemistry Lab-III	0	1	1
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior (for Non-Muslim)			
	MT-223 Ordinar Differential Equations & Fourier Series	3	0	3
	MT-331 Probability & Statistics	3	0	3
	CT-153 Programming Languages	2	1	3
	HS-221 Chinese Language-II	NC		
SPRING 2021	CY-209 Analytical Chemistry-II	3	0	3
	CY-210 Physical Chemistry-II	3	0	3
	CY-207 Industrial Chemistry Lab-IV	0	1	1
	HS-201 Oral Communication	2	1	3
	CH-202 Fluid Mechanics-I	3	1	4
	EL-102 Basic Electronics	3	1	4

Batch 2020
SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2021	CY-205 Inorganic Chemistry-II	3	0	3
	CY-208 Organic Chemistry-II	3	0	3
	CY-206 Industrial Chemistry Lab-III	0	1	1
	HS-205 Islamic Studies OR	2	0	2
	HS-209 Ethical Behavior (for Non-Muslim)			
	MT-223 Ordinar Differential Equations & Fourier Series	3	0	3
	MT-331 Probability & Statistics	3	0	3
	CT-153 Programming Languages	2	1	3
	HS-221 Chinese Language-II	NC		
SPRING 2022	CY-209 Analytical Chemistry-II	3	0	3
	CY-210 Physical Chemistry-II	3	0	3
	CY-207 Industrial Chemistry Lab-IV	0	1	1
	HS-201 Oral Communication	2	1	3
	CH-202 Fluid Mechanics-I	3	1	4
	EL-102 Basic Electronics	3	1	4

Batch 2016-17
THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2018	HS-301 Business & Organizational Communication	3	0	3
	CH-206 Thermodynamics	3	1	4
	CY-312 Spectroscopy	3	0	3
	CY-313 Polymer Science	3	0	3
	CY-305 Industrial Stoichometry	3	0	3
	CY-310 Industrial Chemistry Lab V	0	1	1
SPRING 2019	CY-404 Seperation Techniques	3	0	3
	CY-303 Reaction Kinetics	3	0	3
	CY-308 Unit Processes	3	0	3
	CY-311 Industrial Chemistry Lab VI	0	1	1
	CY-314 Natural Products	3	0	3
	CY-315 Nuclear & Radiation Chemistry	3	0	3
	CH-203 Chemical Process Industries	3	0	3

Batch 2017
THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2019	HS-301 Business & Organizational Communication	3	0	3
	CH-206 Thermodynamics	3	1	4
	CY-312 Spectroscopy	3	0	3
	CY-313 Polymer Science	3	0	3
	CY-305 Industrial Stoichometry	3	0	3
	CY-310 Industrial Chemistry Lab V	0	1	1
SPRING 2020	CY-404 Seperation Techniques	3	0	3
	CY-303 Reaction Kinetics	3	0	3
	CY-308 Unit Processes	3	0	3
	CY-311 Industrial Chemistry Lab VI	0	1	1
	CY-314 Natural Products	3	0	3
	CY-315 Nuclear & Radiation Chemistry	3	0	3
	CH-203 Chemical Process Industries	3	0	3

Batch 2018
THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2020	HS-301 Business & Organizational Communication	3	0	3
	CH-206 Thermodynamics	3	1	4
	CY-312 Spectroscopy	3	0	3
	CY-313 Polymer Science	3	0	3
	CY-305 Industrial Stoichometry	3	0	3
	CY-310 Industrial Chemistry Lab V	0	1	1
SPRING 2021	CY-404 Seperation Techniques	3	0	3
	CY-303 Reaction Kinetics	3	0	3
	CY-308 Unit Processes	3	0	3
	CY-311 Industrial Chemistry Lab VI	0	1	1
	CY-314 Natural Products	3	0	3
	CY-315 Nuclear & Radiation Chemistry	3	0	3
	CH-203 Chemical Process Industries	3	0	3

Batch 2019
THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2021	HS-301 Business & Organizational Communication	3	0	3
	CH-206 Thermodynamics	3	1	4
	CY-312 Spectroscopy	3	0	3
	CY-313 Polymer Science	3	0	3
	CY-305 Industrial Stoichometry	3	0	3
	CY-310 Industrial Chemistry Lab V	0	1	1
SPRING 2022	CY-404 Seperation Techniques	3	0	3
	CY-303 Reaction Kinetics	3	0	3
	CY-308 Unit Processes	3	0	3
	CY-311 Industrial Chemistry Lab VI	0	1	1
	CY-314 Natural Products	3	0	3
	CY-315 Nuclear & Radiation Chemistry	3	0	3
	CH-203 Chemical Process Industries	3	0	3

Batch 2020
THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2022	HS-301 Business & Organizational Communication	3	0	3
	CH-206 Thermodynamics	3	1	4
	CY-312 Spectroscopy	3	0	3
	CY-313 Polymer Science	3	0	3
	CY-305 Industrial Stoichometry	3	0	3
	CY-310 Industrial Chemistry Lab V	0	1	1
SPRING 2023	CY-404 Seperation Techniques	3	0	3
	CY-303 Reaction Kinetics	3	0	3
	CY-308 Unit Processes	3	0	3
	CY-311 Industrial Chemistry Lab VI	0	1	1
	CY-314 Natural Products	3	0	3
	CY-315 Nuclear & Radiation Chemistry	3	0	3
	CH-203 Chemical Process Industries	3	0	3

Batch 2016-17
FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2019	CY-402 Environmental Chemistry	3	0	3
	CH-405 Industrial Safety & Maintenance Management	2	1	3
	##-### Elective-1	-	-	-
	##-### Elective-2	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3
SPRING 2020	CY-416 Nanotechnology	3	0	3
	##-### Elective-3	-	-	-
	##-### Elective-4	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3

Elective Courses

CY-403	Beverage Technology	3	0	3
CY-406	Fat & Oil Processing	3	0	3
CY-414	Pharmaceutical Chemistry	3	0	3
CY-411	Surface Coatings	3	0	3
CY-413	Surfactants and Cosmetics	3	0	3
CH-406	Petroleum Refining & Petrochemicals	3	0	3
CY-408	Polymer Technology	3	0	3
CH-407	Industrial Organization & Management	2	1	3

Batch 2017
FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2020	CY-402 Environmental Chemistry	3	0	3
	CH-405 Industrial Safety & Maintenance Management	2	1	3
	##-### Elective-1	-	-	-
	##-### Elective-2	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3
SPRING 2021	CY-416 Nanotechnology	3	0	3
	##-### Elective-3	-	-	-
	##-### Elective-4	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3

Elective Courses

CY-403	Beverage Technology	3	0	3
CY-406	Fat & Oil Processing	3	0	3
CY-414	Pharmaceutical Chemistry	3	0	3
CY-411	Surface Coatings	3	0	3
CY-413	Surfactants and Cosmetics	3	0	3
CH-406	Petroleum Refining & Petrochemicals	3	0	3
CY-408	Polymer Technology	3	0	3
CH-407	Industrial Organization & Management	2	1	3

Batch 2018
FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2021	CY-402 Environmental Chemistry	3	0	3
	CH-405 Industrial Safety & Maintenance Management	2	1	3
	##-### Elective-1	-	-	-
	##-### Elective-2	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3
SPRING 2022	CY-416 Nanotechnology	3	0	3
	##-### Elective-3	-	-	-
	##-### Elective-4	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3

Elective Courses

CY-403	Beverage Technology	3	0	3
CY-406	Fat & Oil Processing	3	0	3
CY-414	Pharmaceutical Chemistry	3	0	3
CY-411	Surface Coatings	3	0	3
CY-413	Surfactants and Cosmetics	3	0	3
CH-406	Petroleum Refining & Petrochemicals	3	0	3
CY-408	Polymer Technology	3	0	3
CH-407	Industrial Organization & Management	2	1	3

Batch 2019
FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2022	CY-402 Environmental Chemistry	3	0	3
	CH-405 Industrial Safety & Maintenance Management	2	1	3
	##-### Elective-1	-	-	-
	##-### Elective-2	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3
SPRING 2023	CY-416 Nanotechnology	3	0	3
	##-### Elective-3	-	-	-
	##-### Elective-4	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3

Elective Courses

CY-403	Beverage Technology	3	0	3
CY-406	Fat & Oil Processing	3	0	3
CY-414	Pharmaceutical Chemistry	3	0	3
CY-411	Surface Coatings	3	0	3
CY-413	Surfactants and Cosmetics	3	0	3
CH-406	Petroleum Refining & Petrochemicals	3	0	3
CY-408	Polymer Technology	3	0	3
CH-407	Industrial Organization & Management	2	1	3

Batch 2020
FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Industrial Chemistry			
FALL 2023	CY-402 Environmental Chemistry	3	0	3
	CH-405 Industrial Safety & Maintenance Management	2	1	3
	##-### Elective-1	-	-	-
	##-### Elective-2	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3
SPRING 2024	***CY-417 Quality Assurance for Chemists**	**3**	**0**	**3**
	##-### Elective-3	-	-	-
	##-### Elective-4	-	-	-
	CY-415 *Industrial Chemistry Project	0	3	3

Elective Courses

CH-406	Petroleum Refining & Petrochemicals	3	0	3
CY-403	Beverage Technology	3	0	3
CY-406	Fat & Oil Processing	3	0	3
CY-408	Polymer Technology	3	0	3
CY-411	Surface Coatings	3	0	3
CY-413	Surfactants and Cosmetics	3	0	3
CY-414	Pharmaceutical Chemistry	3	0	3
CH-407	Industrial Organization & Management	2	1	3
***CY-416**	**Nanotechnology**	**3**	**0**	**3**

* Changed vide Resolution No.AC-149.4