SCHEME OF STUDIES
POLYMER PETROCHEMICAL ENGINEERING

Batch 2016-17

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
SPRING PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
FALL ME-111	Engineering Drawing	2	1	3
HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4
HS-220	Chinese Language-I			NC

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
HS-205	Islamic Studies OR	2	0	2
ES-209	Ethical Behaviour			
FALL PP-221	Polymer & Petrochemical Lab-I	0	1	1
17-18 PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-208	Polymer Materials, Additives and Blending	3	0	3
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-442	Numerical Method	3	0	3
PP-321	Polymer & Petrochemical Lab-III	0	1	1
PP-322	Polymer & Petrochemical Lab-IV	0	1	1
FALL PP-301	Process Control & Instrumentation	3	1	4
2018 PP-305	Fuels & Combustion	2	0	2
HS-304	Business Communication and Ethics	3	0	3
PP-311	Chemical Reaction Engineering	3	0	3
PE-304	Applied Economics for Engineers	3	0	3
HS-304	Business Communication and Ethics	3	0	3
PP-323	Polymer & Phrochemical Lab-V	0	1	1

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3
FALL PP-411	Separation Processes	3	1	4
2019 PP-413	Process Optimization	3	0	3
PP-421	Polymer & Petrochemical Lab-VI	0	1	1
PP-408	*Polymer and Petrochemical Engineering Project	0	3	3
PP-403	Plant Utilities & Safety	2	1	3
PP-409	Advanced Polymer Engineering	2	0	2
PP-414	Petroleum Refinery Engineering	2	1	3
PP-###	Elective Course	3	0	3
****MG-481**	**Entrepreneurship**	**3**	**0**	**3**
PP-408	Polymer and Petrochemical Engineering Project	0	3	3
	Elective Courses			
PP-412	Environmental Engineering	2	0	2
PP-425	Polymer Rheology	2	0	2
PP-427	Rubber Technology	2	0	2
PP-428	Process Modeling & Simulation	1	1	2
PP-429	Gas Engineering	2	0	2

* Duration one academic year: Requires literature survey and preliminary work

**** Changed vide Resolution No.AC-146.4**

Batch 2017

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
FALL 17-18 PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
SPRING ME-111	Engineering Drawing	2	1	3
2018 HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4
HS-220	Chinese Language-I			NC

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
HS-205	Islamic Studies OR	2	0	2
ES-209	Ethical Behaviour			
PP-221	Polymer & Petrochemical Lab-I	0	1	1
HS-221	Chinese Language-II			NC
PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-208	Polymer Materials, Additives and Blending	3	0	3
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-442	Numerical Method	3	0	3
PP-321	Polymer & Phrochemical Lab-III	0	1	1
PP-322	Polymer & Phrochemical Lab-IV	0	1	1
FALL PP-301	Process Control & Instrumentation	3	1	4
2019 PP-305	Fuels & Combustion	2	0	2
HS-310	Industrial Organization and Management	2	0	2
PP-311	Chemical Reaction Engineering	3	0	3
PE-304	Applied Economics for Engineers	3	0	3
HS-304	Business Communication and Ethics	3	0	3
PP-323	Polymer & Phrochemical Lab-V	0	1	1

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3
FALL PP-411	Separation Processes	3	1	4
2020 PP-413	Process Optimization	3	0	3
PP-421	Polymer & Phrochemical Lab-VI	0	1	1
PP-408	*Polymer and Petrochemical Engineering Project	0	3	3
PP-403	Plant Utilities & Safety	2	1	3
PP-409	Advanced Polymer Engineering	2	0	2
PP-414	Petroleum Refinery Engineering	2	1	3
PP-###	Elective Course	3	0	3
MG-481	Entrepreneurship	3	0	3
PP-408	Polymer and Petrochemical Engineering Project	0	3	3
	Elective Courses			
PP-412	Environmental Engineering	2	0	2
PP-425	Polymer Rheology	2	0	2
PP-427	Rubber Technology	2	0	2
PP-428	Process Modeling & Simulation	1	1	2
PP-429	Gas Engineering	2	0	2

* Duration one academic year: Requires literature survey and preliminary work

Batch 2018

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
SPRING ME-111	Engineering Drawing	2	1	3
2018 HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4
HS-220	Chinese Language-I			NC

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
HS-205	Islamic Studies OR	2	0	2
ES-209	Ethical Behaviour			
PP-221	Polymer & Petrochemical Lab-I	0	1	1
HS-221	Chinese Language-II			NC
PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-212	**Polymeric Materials & Their Characterization**	**3**	**0**	**3**
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1

* Changed vide Resolution No.SYN-185.5(xiii)

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-442	Numerical Method	3	0	3
PP-321	Polymer & Phrochemical Lab-III	0	1	1
PP-322	Polymer & Phrochemical Lab-IV	0	1	1
SPRING PP-301	Process Control & Instrumentation	3	1	4
2019 PP-305	Fuels & Combustion	2	0	2
HS-310	Industrial Organization and Management	2	0	2
PP-311	Chemical Reaction Engineering	3	0	3
PE-304	Applied Economics for Engineers	3	0	3
HS-304	Business Communication and Ethics	3	0	3
PP-323	Polymer & Phrochemical Lab-V	0	1	1

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3
SPRING PP-411	Separation Processes	3	1	4
2020 PP-413	Process Optimization	3	0	3
PP-421	Polymer & Phrochemical Lab-VI	0	1	1
PP-408	*Polymer and Petrochemical Engineering Project	0	3	3
PP-403	Plant Utilities & Safety	2	1	3
PP-409	Advanced Polymer Engineering	2	0	2
PP-414	Petroleum Refinery Engineering	2	1	3
PP-###	Elective Course	3	0	3
MG-481	Entrepreneurship	3	0	3
PP-408	Polymer and Petrochemical Engineering Project	0	3	3
	Elective Courses			
PP-412	Environmental Engineering	2	0	2
PP-425	Polymer Rheology	2	0	2
PP-427	Rubber Technology	2	0	2
PP-428	Process Modeling & Simulation	1	1	2
PP-429	Gas Engineering	2	0	2

* Duration one academic year: Requires literature survey and preliminary work

Batch 2019

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
SPRING ME-111	Engineering Drawing	2	1	3
2019 HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4
HS-220	Chinese Language-I			NC

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
HS-205	Islamic Studies OR	2	0	2
ES-209	Ethical Behaviour			
PP-221	Polymer & Petrochemical Lab-I	0	1	1
HS-221	Chinese Language-II			NC
PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-212	**Polymeric Materials & Their Characterization**	**3**	**0**	**3**
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1

* Changed vide Resolution No.AC-141.4

**** Changed vide Resolution No.AC-151.4(ii)**

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-471	**Applied Numerical Method**	**2**	**1**	**3**
PP-321	Polymer & Phrochemical Lab-III	0	1	1
PP-322	Polymer & Phrochemical Lab-IV	0	1	1
SPRING PP-301	Process Control & Instrumentation	3	1	4
2020 PP-305	Fuels & Combustion	2	0	2
HS-310	Industrial Organization and Management	2	0	2
PP-311	Chemical Reaction Engineering	3	0	3
****PP-303**	**Applied Economics for Engineers**	**3**	**0**	**3**
HS-304	Business Communication and Ethics	3	0	3
PP-323	Polymer & Phrochemical Lab-V	0	1	1

* Changed vide Resolution No.AC-141.4

**** Changed vide Resolution No.AC-151.4(ii)**

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3
SPRING PP-411	Separation Processes	3	1	4
2021 PP-413	Process Optimization	3	0	3
PP-421	Polymer & Phrochemical Lab-VI	0	1	1
PP-408	*Polymer and Petrochemical Engineering Project	0	3	3
PP-403	Plant Utilities & Safety	2	1	3
PP-409	Advanced Polymer Engineering	2	0	2
PP-414	Petroleum Refinery Engineering	2	1	3
PP-###	Elective Course	3	0	3
MG-481	Entrepreneurship	3	0	3
PP-408	Polymer and Petrochemical Engineering Project	0	3	3
	Elective Courses			
PP-412	Environmental Engineering	2	0	2
PP-425	Polymer Rheology	2	0	2
PP-427	Rubber Technology	2	0	2
PP-428	Process Modeling & Simulation	1	1	2
PP-429	Gas Engineering	2	0	2

* Duration one academic year: Requires literature survey and preliminary work

Batch 2020

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
SPRING ME-111	Engineering Drawing	2	1	3
2021 HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4
HS-220	Chinese Language-I			NC
HS-200	Community Service			NC

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
HS-205	Islamic Studies OR	2	0	2
ES-209	Ethical Behaviour			
PP-221	Polymer & Petrochemical Lab-I	0	1	1
HS-221	Chinese Language-II			NC
PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-212	Polymeric Materials & Their Characterization	3	0	3
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-471	Applied Numerical Method	2	1	3
PP-321	Polymer & Phrochemical Lab-III	0	1	1
PP-322	Polymer & Phrochemical Lab-IV	0	1	1
SPRING PP-301	Process Control & Instrumentation	3	1	4
2022 PP-305	Fuels & Combustion	2	0	2
HS-310	Industrial Organization and Management	2	0	2
PP-311	Chemical Reaction Engineering	3	0	3
PE-304	Applied Economics for Engineers	3	0	3
***EA-304**	**Business Communication and Ethics**	**0**	**3**	**3**
PP-323	Polymer & Phrochemical Lab-V	0	1	1
***EA/ES**	**Foreign Language-I**			**NC**

* Under Section 26(iv) Offec Order Acad/42(196)16909

**** Changed vide Resolution AC-159.5**

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3
SPRING PP-411	Separation Processes	3	1	4
2022 PP-413	Process Optimization	3	0	3
PP-421	Polymer & Phrochemical Lab-VI	0	1	1
PP-408	*Polymer and Petrochemical Engineering Project	0	3	3
PP-403	Plant Utilities & Safety	2	1	3
PP-409	Advanced Polymer Engineering	2	0	2
PP-414	Petroleum Refinery Engineering	2	1	3
PP-###	Elective Course	3	0	3
MG-481	Entrepreneurship	3	0	3
PP-408	Polymer and Petrochemical Engineering Project	0	3	3
	Elective Courses			
PP-412	Environmental Engineering	2	0	2
PP-425	Polymer Rheology	2	0	2
PP-427	Rubber Technology	2	0	2
PP-428	Process Modeling & Simulation	1	1	2
PP-429	Gas Engineering	2	0	2

* Duration one academic year: Requires literature survey and preliminary work

Batch 2021

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
SPRING ME-111	Engineering Drawing	2	1	3
2022 HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
HS-205	Islamic Studies OR	2	0	2
ES-209	Ethical Behaviour			
PP-221	Polymer & Petrochemical Lab-I	0	1	1
HS-221	Chinese Language-II			NC
PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-212	Polymeric Materials & Their Characterization	3	0	3
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-471	Applied Numerical Method	2	1	3
PP-321	Polymer & Phrochemical Lab-III	0	1	1
PP-322	Polymer & Phrochemical Lab-IV	0	1	1
SPRING PP-301	Process Control & Instrumentation	3	1	4
2023 PP-305	Fuels & Combustion	2	0	2
HS-310	Industrial Organization and Management	2	0	2
PP-311	Chemical Reaction Engineering	3	0	3
PE-304	Applied Economics for Engineers	3	0	3
***EA-304**	**Business Communication and Ethics**	**0**	**3**	**3**
PP-323	Polymer & Phrochemical Lab-V	0	1	1
***EA/ES**	**Foreign Language-I**			**NC**

* Under Section 26(iv) Offec Order Acad/42(196)16909

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3
SPRING PP-411	Separation Processes	3	1	4
2023 PP-413	Process Optimization	3	0	3
PP-421	Polymer & Phrochemical Lab-VI	0	1	1
PP-408	*Polymer and Petrochemical Engineering Project	0	3	3
***EA/ES**	**Foreign Language-II**			**NC**
****PP-430**	**Mechanical Properties of Polymers**	**2**	**1**	**3**
PP-430	Mechanical Properties of Polymers	2	0	2
PP-414	Petroleum Refinery Engineering	2	1	3
PP-###	Elective Course	3	0	3
MG-481	Entrepreneurship	3	0	3
PP-408	Polymer and Petrochemical Engineering Project	0	3	3
	Elective Courses			
PP-412	Environmental Engineering	2	0	2
PP-425	Polymer Rheology	2	0	2
PP-427	Rubber Technology	2	0	2
PP-428	Process Modeling & Simulation	1	1	2
PP-429	Gas Engineering	2	0	2

* Duration one academic year: Requires literature survey and preliminary work

**** Changed vide Resolution AC-159.5**

Foreign Language-I		
***EA-220**	**Chinese Language-I**	**NC**
***EA-231**	**Turkish Language-I**	**NC**
***EA-224**	**German Language-I**	**NC**
***EA-226**	**French Language-I**	**NC**

Batch 2022

FIRST YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-105	Introduction to Petrochemicals	2	0	2
PP-106	Thermodynamics-I	2	0	2
HS-104	Functional English	3	0	3
PH-122	Applied Physics	3	1	4
MT-114	Calculus	3	0	3
PP-103	Workshop Practice	0	1	1
PP-104	Introduction to Polymers	3	1	4
ME-101	Engineering Mechanics	3	1	4
SPRING ME-111	Engineering Drawing	2	1	3
2023 HS-105	Pakistan Studies -OR	2	0	2
HS-127	Pakistan Studies (for Foreigners)	2	0	2
EE-118	Basic Electricity and Electronics	3	1	4

SECOND YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-203	Principles of Chemical Processes	2	1	3
PP-207	Fluid Mechanics	3	0	3
PP-209	Thermodynamics-II	3	0	3
PP-211	Computer Programming and Application	2	1	3
MT-330	Applied Probability and Statistics	2	1	3
***ES-205**	**Islamic Studies OR**	**2**	**0**	**2**
***ES-209**	**Ethical Behaviour**			
PP-221	Polymer & Petrochemical Lab-I	0	1	1
PP-202	Polymer Physics	3	0	3
PP-205	Petroleum & Petrochemical Products	2	0	2
PP-212	Polymeric Materials & Their Characterization	3	0	3
MM-205	Mechanics of Material	3	1	4
MT-215	Differential Equations & Complex Variables	3	0	3
PP-222	Polymer & Petrochemical Lab-II	0	1	1
****EA-200**	**Community Service**			**NC**

* Under Section 26(iv) Offec Order Acad/42(196)16911

**** Under Section 26(iv) Offec Order Acad/42(196)16909**

THIRD YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-210	Polymer Processing	2	0	2
PP-307	Polymer Composites	3	0	3
PP-308	Heat Transfer	3	0	3
PP-309	Mass Transfer	3	0	3
MT-471	Applied Numerical Method	2	1	3
PP-321	Polymer & Phrochemical Lab-III	0	1	1
PP-322	Polymer & Phrochemical Lab-IV	0	1	1
SPRING PP-301	Process Control & Instrumentation	3	1	4
2024 PP-305	Fuels & Combustion	2	0	2
HS-310	Industrial Organization and Management	2	0	2
PP-311	Chemical Reaction Engineering	3	0	3
PE-303	Applied Economics for Engineers	3	0	3
***EA-304**	**Business Communication and Ethics**	**0**	**3**	**3**
PP-323	Polymer & Phrochemical Lab-V	0	1	1
EA/ES	Foreign Language-I			NC

FINAL YEAR ---------- SEMESTER SYSTEM

Course Code	Course Title	Crd Hrs Th	Pr	T
	Polymer & Petrochemical Engineering			
PP-402	Petrochemical Processes	3	1	4
PP-406	Process Equipment Design	3	0	3
PP-410	Polymer Reaction Engineering	3	0	3