

Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology

Bachelor of Engineering in Chemical Engineering Semester wise course outline

Course Code	Course Title	Theory CH	Lab CH	Total
CH-202	Inorganic and Organic Chemistry	3	0	3
CH-202L	Inorganic and Organic Chemistry Lab	0	1	1
COMP-102	Introduction to ICT	2	0	2
COMP-102L	Introduction to ICT Lab	0	1	1
MTH-101	Calculus and Analytical Geometry	3	0	3
SS-102	Communication Skills	2	0	2
SS-310	Professional Ethics	3	0	3
Total		13	2	15
<i>Semester 2</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
ME-101L	Workshop Practice	0	1	1
MSE-101	Fundamental of Engineering Materials	3	0	3
MTH-202	Linear Algebra and Differential Equations	3	0	3
PHY-101	Applied Physics	3	0	3
PHY-101L	Applied Physics Lab	0	1	1
SS-111	Islamic Studies	2	0	2
SS-112	Pakistan Studies	2	0	2
SS-203	Technical and Business Writing	3	0	3
Total		16	2	18

<i>Semester 3</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
CHE-201	Chemical Engineering Principles-I	3	0	3
CHE-203	Chemical Process Industries	3	0	3
CH-202	Physical and Analytical Chemistry	2	0	2
CH-202L	Physical and Analytical Chemistry Lab	0	1	1
COMP-111	Programming Fundamentals	3	0	3
COMP-111L	Programming Fundamentals Lab	0	1	1
ME-102L	Engineering Drawing	0	1	1
MTH-307	Numerical Computations	2	0	2
MTH-307L	Numerical Computations Lab	0	1	1
Total		13	4	17
<i>Semester 4</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
CHE-211	Fluid Mechanics-I	2	0	2
CHE-202	Chemical Engineering Principles-II	3	0	3
CHE-212	Chemical Engineering Thermodynamics-I	2	0	2
CHE-215	Heat Transfer	3	0	3
CHE-215L	Heat Transfer Lab	0	1	1
CHE-216	Particulate Technology	3	0	3
CHE-216L	Particulate Technology Lab	0	1	1
ECE-110	Basic Electrical Engineering	2	0	2
ECE-110L	Basic Electrical Engineering Lab	0	1	1
Total		15	3	18

<i>Semester 5</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
CHE-317	Chemical Engineering Thermodynamics-II	2	0	2
CHE-317L	Chemical Engineering Thermodynamics-II Lab	0	1	1
CHE-313	Fluid Mechanics-II	2	0	2
CHE-313L	Fluid Mechanics-II Lab	0	1	1
MGT-262	Entrepreneurship	3	0	3
CHE-314	Mass Transfer	3	0	3
CHE-314L	Mass Transfer Lab	0	1	1
CHE-331	Energy Engineering	2	0	2
CHE-331L	Energy Engineering Lab	0	1	1
SS-321	Engineering Economics	2	0	2
Total		14	4	18
<i>Semester 6</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
CHE-321	Chemical Reaction Engineering	3	0	3
CHE-321L	Chemical Reaction Engineering Lab	0	1	1
CHE-318	Separation Processes	3	0	3
CHE-318L	Separation Processes Lab	0	1	1
CHE-323	Instrumentations and Process Control	3	0	3
CHE-323L	Instrumentations and Process Control Lab	0	1	1
CHE-335	Environmental Engineering	2	0	2
CHE-335L	Environmental Engineering Lab	0	1	1
MTH-231	Probability and Statistics	3	0	3
Total		14	4	18

<i>Semester 7</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
CHE-XXX	Depth Elective-I	3	0	3
CHE-422	Process Simulation	3	0	3
CHE-422L	Process Simulation Lab	0	1	1
CHE-454	Chemical Plant Design	3	0	3
CHE-498	Final Year Project-I	0	3	3
CHE-XXX	Depth Elective-II	3	0	3
SS-331	Community Services	0	1 (NC)	0
Total		12	4	16
<i>Semester 8</i>				
Course Code	Course Title	Theory CH	Lab CH	Total
MGT-355	Production & Operational Management	3	0	3
CHE-426	Transport Phenomena	3	0	3
CHE-451	Plant Safety and Maintenance	3	0	3
CHE-499	Final Year Project-II	0	3	3
CHE-XXX	Depth Elective-III	3	0	3
Total		12	3	15
	Total	135		