Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
Syllabus for B. Tech in Chemical Engineering
(Applicable from the academic session 2018-2019)

Curiculum Structure

2nd Year - Semester III

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hrs./week	Credits
				Lecture	Tutorial	Practical		
1	Engineering Science Course	CHE-ES301	Engineering and Solid Mechanics	2	1	0	3	3
2	Basic Science Course	CHE-BS302	Chemistry - II	2	1	0	3	3
3	Professional Core Courses	CHE-PC303	Fluid Mechanics	3	1	0	4	4
4	Basic Science course	CHE-BS304	Biology	2	1	0	3	3
5	Professional Core courses	CHE-PC 305	Thermodynamics – II	2	1	0	3	3
6	Professional Core courses	CHE-PC306	Material & Energy Balance Computation	3	1	0	4	4
7	Engineering Science Course	CHE-ES391	Engineering Workshop	1	0	4	5	3
							Total Credits	23

2nd Year - Semester IV

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hrs/week	Credits
				Lecture	Tutorial	Practical		
1	Engineering Science Course	CHE-ES401	Materials Science	3	0	0	3	3
2	Professional Core Courses	CHE-PC402	Heat Transfer	3	1	0	4	4
3	Professional Core Courses	CHE-PC403	Mass Transfer-I	3	0	0	3	3
4	Professional Core Courses	CHE-PC404	Numerical Methods in Chemical Engineering	2	0	0	2	2
5	Professional Core courses	CHE-PC405	Chemical Reaction Engineering- I	3	1	0	4	4
6	Engineering Science Course Humanities And Social Sciences Including Management	CHE-HS406	HASS- II	3	0	0	3	3

	Courses							
7	Professional Core Courses Lab	CHE-PC491	Numerical Methods in Chemical Engineering Lab	0	0	2	2	1
8	Mandatory non-credit course	CHE-MC	Environmental sciences	-	-	-		0
							Total Credits	20

3rd Year - Semester V

Sl. No.	Category	Code	Course Title	Hours per week			Total contact hrs./week	Credits
				Lecture	Tutorial	Practical		
1	Professional Core Courses	CHE-PC501	Transport Phenomena	3	1	0	4	4
2	Professional Core Courses	CHE-PC502	Mass Transfer-II	3	0	0	3	3
3	Professional Core Courses	CHE-PC503	Chemical Reaction Engineering-II	3	0	0	3	3
4	Professional Elective Courses	CHE-PEC504	Core Elective-I Renewable Energy	3	0	0	3	3
5	Open Elective Courses	CHE-OE505	Open Elective-I A) Industrial Safety and Hazard Analysis or B)Petrochemical Technology	3	0	0	3	3
6	Engineering Science Course Humanities And Social Sciences Including Management Courses	CHE-HS506	HASS- III	3	0	0	3	3
7	Professional Core Courses	CHE-PC591	Chemical Engineering Lab- I	0	0	4	4	2
8	Mandatory non-credit course	CHE-MC 501-B	Essence of Indian Knowledge Tradition	-	-	-		0
							Total Credits	21

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Semester VI (Third year)

S. No.	Type of course	Code	Course Title	Hours per week			Total contact hours /week	Credits
				Lecture	Tutorial	Practical		
1	Professional Core Courses	CHE-PC601	Particle & Fluid Particle Processing	3	0	0	3	3
2	Professional Core courses	CHE-PC602	Process Technology & Economics	3	0	0	3	3
3	Professional Core Courses	CHE-PC603	Process Control	3	0	0	3	3
4	Professional Elective Courses	CHE-PE604	Core Elective- II a)Nano science & Nano technology or b)Polymer Science & Engineering	3	0	0	3	3
5	Open Elective Courses	CHE-OE605	Open Elective- II a)Ceramic Technology or b)Project Engineering	3	0	0	3	3
6	Humanities And Social Sciences Including Management Courses	CHE-HS606	HASS- IV	3	0	0	3	3
7	Professional Core Courses	CHE-PC691	Chemical Engineering Lab- II	0	0	4	4	2
Total credits								**20**
Students undergo Summer Internship for a period of 12 weeks.								**3 credits**

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Semester VII (Fourth year)

S. No.	Type of course	Code	Course Title	Hours per week			Total contact Hours/week	Credits
				Lecture	Tutorial	Practical		
1	Professional Elective Courses	CHE-PE701	Core Elective- III Environmental Pollution & Control	3	0	0	3	3
2	Professional Elective Courses	CHE-PE702	Core Elective- IV Advanced Separation Process	3	0	0	3	3
3	Open Elective Courses	CHE-OE703	Open Elective- III Bio-Technology& Biochemical engineering	3	0	0	3	3
4	Open Elective Courses	CHE-OE704	Open Elective- IV Operation Research	3	0	0	3	3
5	Professional Core Courses	CHE-PC791	Design & Simulation Lab	1	0	4	5	3
6	Professional Core Courses	CHE-PC792	Instrumentation & Control Lab	1	0	4	5	3
Total credits								**18**

Semester VIII (Fourth year)

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				Lecture	Tutorial	Practical	
1	Summer Industry Internship Project	CHE-PJ881	Project	-	-	-	12
Total credits							**12**

TOTAL CREDITS – 160