

**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)

**Curriculum Structure**

**2<sup>nd</sup> 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-PC305	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
<b>Total Credits</b>								<b>23</b>

**2<sup>nd</sup> 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

**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)

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
<b>Total Credits</b>								<b>20</b>

**3<sup>rd</sup> 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
<b>Total Credits</b>								<b>21</b>

**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)

**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
<b>Total credits</b>								<b>20</b>
<b>Students undergo Summer Internship for a period of 12 weeks.</b>								<b>3 credits</b>

**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)

**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
<b>Total credits</b>								<b>18</b>

**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
<b>Total credits</b>							<b>12</b>

**TOTAL CREDITS - 160**