Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
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Curriculum Structure

Sl No.	Category	Subject Code	Subject Name	L	T	P	Credits
First Year First Semester							
Mandatory Induction Program- 3 weeks duration							
Theory							
1	Basic Science course	BS-PH101	Physics-I	3	1	0	4
2	Basic Science course	BS-M102	Mathematics –IB	3	1	0	4
3	Engineering Science Courses	ES-EE101	Basic Electrical Engineering	3	1	0	4
			Total Theory	9	3	0	12
Practical							
1	Basic Science course	BS-PH191	Physics-I Laboratory	0	0	3	1.5
2	Engineering Science Courses	ES-EE191	Basic Electrical Engineering Laboratory	0	0	2	1
3	Engineering Science Courses	ES-ME192	Workshop/Manufacturing Practices	1	0	4	3
			Total Practical	1	0	9	5.5
			Total of First Semester	10	3	9	17.5

Sl No.	Category	Subject Code	Subject Name	L	T	P	Credits
First Year Second Semester							
Theory							
1	Basic Science course	BS-CH201	Chemistry-I (Gr-A)	3	1	0	4
2	Basic Science course	BS-M202	Mathematics –IIB	3	1	0	4
3	Engineering Science Courses	ES-CS201	Programming for Problem Solving	3	0	0	3
4	Humanities and Social Sciences including Management courses	HM-HU201	English	2	0	0	2
			Total Theory	11	2	0	13
Practical							
1	Basic Science course	BS-CH291	Chemistry-I Laboratory	0	0	3	1.5
2	Engineering Science Courses	ES-CS291	Programming for Problem Solving	0	0	4	2
3	Engineering Science Courses	ES-ME291	Engineering Graphics & Design (Gr-A)	1	0	4	3
4	Humanities and Social Sciences including Management courses	HM-HU291	Language Laboratory	0	0	2	1
			Total Practical	1	0	13	7.5
			Total of Second Semester	12	2	13	20.5

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Second Year Third Semester							
Sl No.	Category	Subject Code	Subject Name	Total No. of contact hours			Credits
				L	T	P	
Theory							
1	Basic Science course	BS-M301	Mathematics III (PDE, Probability & Statistics)	3	1	0	4
2	Basic Science course	BS-BIO301	Biology	3	0	0	3
3	Engineering Science Courses	ES-ECE301	Basic Electronics Engineering	3	0	0	3
4	Engineering Science Courses	ES-AUE301	Engineering Mechanics	3	1	0	4
5	Professional Core courses	PC-AUE301	Applied Thermodynamics	3	1	0	4
6	Professional Core courses	PC-AUE302	Manufacturing Processes	4	0	0	4
		Total Theory		**19**	**3**	**0**	**22**
Practical							
1	Professional Core courses	PC-AUE391	Machine Drawing	0	0	3	1.5
		Total Practical		**0**	**0**	**3**	**1.5**
			Total of Third Semester	**19**	**3**	**3**	**23.5**

Second Year Fourth Semester							
Sl No.	Category	Subject Code	Subject Name	Total No. of contact hours			Credits
				L	T	P	
Theory							
1	Engineering Science Courses	ES-AUE401	Materials Engineering	3	0	0	3
2	Professional Core courses	PC-AUE401	Strength of Materials	3	1	0	4
3	Professional Core courses	PC-AUE402	Fluid Mechanics & Fluid Machines	4	0	0	4
4	Professional Core courses	PC-AUE403	Theory of Machine	3	1	0	4
5	Professional Core courses	PC-AUE404	Metrology and Instrumentation	3	0	0	3
		Total Theory		**16**	**2**	**0**	**18**
Practical							
1	Professional Core courses	PC-AUE 491	Manufacturing & Testing Lab	0	0	3	1.5
2	Mandatory courses	MC481	Environmental Science	-	-	2	0
		Total Practical		**0**	**0**	**5**	**1.5**
			Total of Fourth Semester	**16**	**2**	**5**	**19.5**

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Sl No.	Category	Subject Code	Subject Name	Total No. of contact hours			Credits
				L	T	P	
Third Year Fifth Semester							
Theory							
1	Professional Core courses	PC-AUE501	Automotive Engines	3	0	0	3
2	Professional Core courses	PC-AUE502	Automotive Body & Chassis Engineering	3	0	0	3
3	Professional Core courses	PC-AUE503	Heat Transfer	3	1	0	4
4	Professional Core Courses	PC-AUE 504	Design of Machine Element	3	1	0	4
5	Humanities and Social Sciences including Management courses	HM-HU 511A/ HM-HU 511B	Values & Ethics / Education, Technology & Society	3	0	0	3
	Total Theory			**15**	**2**	**0**	**17**
Practical/ Sessional							
1	Professional Core courses	PC-AUE591	Fluid Mechanics & Heat Transfer Lab	0	0	3	1.5
2	Professional Core courses	PC-AUE592	Automobile Engineering Lab I (Engine & Chassis Component Lab)	0	0	3	1.5
3	Professional Core courses	PC-AUE593	Automobile Engineering Lab II (ETPM Lab)	0	0	3	1.5
4	Project (Mini Project)	PW-AUE581	Project-I (30 hrs. Total)	0	0	0	1
	Total Practical			**0**	**0**	**9**	**5.5**
	Total of Fifth Semester			**15**	**2**	**9**	**22.5**

List of Humanities and Social Sciences including Management courses

HM-HU 511A: Values & Ethics
HM-HU 511B: Education Technology & Society

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Third Year Sixth Semester							
Sl No.	Category	Subject Code	Subject Name	Total No. of contact hours			Credits
				L	T	P	
Theory							
1	Professional Core courses	PC-AUE601	Automotive Transmission	3	0	0	3
2	Professional Core courses	PC-AUE602	Hybrid & Electric Vehicles	3	0	0	3
3	Professional Elective courses	PE-AUE 611A/ PE-AUE 611B	Elective-I	3	0	0	3
5	Humanities and Social Sciences including Management courses	HM-HU 611A/ HM-HU 611B	Humanities-II	3	0	0	3
6	Mandatory courses	MC-601	Essence of Indian Traditional Knowledge	-	1	-	0
			Total Theory	**12**	**1**	**0**	**12**
Practical/ Sessional							
1	Professional Core courses	PC-AUE691	Automobile Engineering Lab III (Automotive Design Lab)	0	0	3	1.5
2	Professional Core courses	PC-AUE692	Automobile Engineering Lab IV (Vehicle Maintenance Lab)	0	0	3	1.5
2	Project (or Summer internship)	PW-AUE681	Project-II (90 hrs. Total)	0	0	0	3
			Total Practical	**0**	**0**	**6**	**6**
			Total of Sixth Semester	**12**	**1**	**6**	**18**

List of Professional Elective courses

PE-AUE 611A: Electronic Vehicle Management System
PE-AUE 611B: Transport Management & Motor Vehicles Act

List of Humanities and Social Sciences including Management courses

HM-HU 611A: Introduction to Industrial Management
HM-HU 611B: Quantitative Methods for Decision Making

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Sl No.	Category	Subject Code	Subject Name	Total No. of contact hours			Credits
				L	T	P	
Theory							
1	Professional Core courses	PC-AUE 701	Vehicle Dynamics	3	0	0	3
2	Professional Elective courses	PE-AUE 711A/ PE-AUE 711B	Elective II	3	0	0	3
3	Professional Elective courses	PE-AUE 712A/ PE-AUE 712B	Elective-III	3	0	0	3
4	Open Elective courses	OE-AUE711A/ OE-AUE711B/ OE-AUE 711C	Open Elective- I	3	0	0	3
5	Humanities and Social Sciences including Management courses	HM-HU701	Economics for Engineers	2	0	0	2
		Total Theory		**14**	**0**	**0**	**14**
Practical/ Sessional							
1	Professional Core courses	PC-AUE 791	Automobile Engineering Lab V (Automotive Electrical & Electronics Lab	0	0	3	1.5
2	Project	PW-AUE 781	Project-III	0	0	6	3
		Total Practical		**0**	**0**	**9**	**4.5**
			Total of Seventh Semester	**14**	**0**	**9**	**18.5**

List of Professional Elective courses

PE-AUE 711A: Alternate Fuels and Energy Systems
PE-AUE 711B: CAD/CAM and Modern Manufacturing Methods

PE-AUE 712A: Automotive Component & System Design
PE-AUE 712B: Two and Three Wheelers

List of Open Elective courses

OE-AUE 711A: Quality Control & Reliability Engineering
OE-AUE 711B: Machine Learning
0E-AUE 711C: Cloud Computing

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Sl No.	Category	Subject Code	Subject Name	L	T	P	Credits
Fourth Year Eighth Semester							
				Total No. of contact hours			**Credits**
Theory							
1	Professional Elective courses	PE-AUE 811A/ PE-AUE 811B	Elective IV	3	0	0	3
2	Professional Elective courses	PE-AUE 812A/ PE-AUE 812B/ PE-AUE 812C	Elective V	3	0	0	3
3	Open Elective courses	OE-AUE 811A/ OE-AUE 811B/ OE-AUE 811C	Open Elective-II	3	0	0	3
4	Open Elective courses	OE-AUE 812A/ OE-AUE 812B	Open Elective- III	3	0	0	3
		Total Theory		**12**	**0**	**0**	**12**
Practical/ Sessional							
1	Professional Core courses	PW-AUE 881	Comprehensive Viva Voce	0	0	0	2
2	Project	PW-AUE 882	Project-IV	0	0	12	6
		Total Practical		**0**	**0**	**12**	**8**
			Total of Eighth Semester	**12**	**0**	**12**	**20**

List of Professional Elective courses

PE-AUE 811A: Off Road Vehicles

PE-AUE 811B: Automotive Air Conditioning

PE-AUE 812A: Non-Destructive Testing Methods

PE-AUE 812B: Noise, Vibrations and Harshness

PE-AUE 812C: Finite Element Method & its Applications

List of Open Elective courses

OE-AUE 811A: Tribology

OE-AUE 811B: Internet of Things

OE-AUE 811C: Soft Computing

OE-AUE 812A: Computational Fluid Dynamics

OE-AUE 812B: Entrepreneurship Development

OE-AUE 812C: Robotics and Robot Application