Dr. Ambedkar Institute of Technology, Bangalore Scheme of Teaching and Examination 2020 – 21 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (w.e.f. the academic year 2020-21)

Programme: B.E AERONAUTICAL ENGINEERING

				I SEMESTER B.E (I	PHYSICS GROUP	P)							
#	-	Course and ourse Code		t	50	Teach How /We	urs		Ex	caminatio	on	-	
			Course Title	Teaching Department	Paper Setting Board	Theory Lecture	L Tutorial	H Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	BC	18MAT11	Calculus and Linear Algebra	Mathematics	Science	3	2		03	50	50	100	4
2	BC	18PHY12	Engineering Physics	Physics	Science	4			03	50	50	100	4
3	ES	18ELE13	Basic Electrical Engineering	E and E Engineering	E and E Engineering	2	2		03	50	50	100	3
4	ES	18CIV14	Civil Engineering and Mechanics	Civil Engineering	Civil Engineering	2	2		03	50	50	100	3
5	ES	18MEL15	Computer Aided Engineering Drawing	ME Engineering	Mechanical Engineering	0	2	2	03	50	50	100	3
6	BC	18PHYL16	Engineering Physics Laboratory	Physics	Science			2	03	50	50	100	1
7	ES	18ELEL17	Basic Electrical Engineering Laboratory	E and E Engineering	E and E Engineering			2	03	50	50	100	1
8	HS	18ENG18/ 18KAN18	Communication Skill / Kannada	Humanities	Humanities	1		2	02	50	50	100	1
9	HS	18HS13	Career Development Skills	Humanities	Humanities	2			2	50		50	
		•	·	•	TOTAL	16	06	08	25	450	400	850	20

Dr. Ambedkar Institute of Technology, Bangalore Scheme of Teaching and Examination 2020 – 21 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (w.e.f. the academic year 2020-21)

Programme: B.E AERONAUTICAL ENGINEERING

				II SEMESTER B.E (Cl	HEMISTRY GROU	JP)							
#		ourse and urse Code	Course Title		50	Teach Hou /We	irs		Ex	aminatio	on		
			Course Thie	Teaching Department	Paper Setting Board	Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
		T				L	Т	Р		_		-	
1	BC	18MAT21	Differential Equations and Complex Variables	MAT	Science	3	2		03	50	50	100	4
2	BC	18CHE22	Engineering Chemistry	CHE	Science	4			03	50	50	100	4
3	ES	18CSE23	C Programming for Problem Solving	CS	CS	2	2		03	50	50	100	3
4	ES	18ELN24	Basic Electronics	EC/EI/ TE	EC	2	2		03	50	50	100	3
5	ES	18ME25	Elements of Mechanical Engineering	ME Engineering	ME	2	2		03	50	50	100	3
6	BC	18CHL26	Engineering Chemistry Laboratory	CHE	Science			2	03	50	50	100	1
7	ES	18CSL27	Computer Programming Laboratory	CS	CS			2	03	50	50	100	1
8	HS	18ENG28/ 18KAN28	Communication Skill / Kannada	HS	HS	2			02	50		50	1
9	HS	18HS23	Soft Skills	Humanities	Humanities	2			2	50		50	
	_1	1		I	TOTAL	16	08	06	25	450	400	850	20

Note: BC: Science Course, ES: Engineering Science, HS: Humanity and Social Science.

			of Technology, Bengaluru-560 056 NG AND EXAMINATION from Academic Ye	or 2021-22								
B.E	AERO	NAUTICAL	ENGINEERING									
	<mark>come B</mark> SEMES		on (OBE) and Choice Based Credit System	(CBCS)								
					Teac Hou	0	Veek	Exa	minat	tion		
SI. No		se and se Code	Course Title	Teaching Department	T Theory	H Tutorial	d Practical/ Drawing	Duration in	CIE Marks	SEE Marks	Total Marks	Credits
01	BC	18MA31	Transforms & Boundary Value Problems	Mathematics	2	2	0	03	50	50	100	3
02	PC	18AE31	Aero Thermodynamics	AE	3	2	0	03	50	50	100	4
03	PC	18AE32	Mechanics of Materials	AE	3	2	0	03	50	50	100	4
04	PC	18AE33	Elements of Aeronautics	AE	3	0	0	03	50	50	100	3
05	PC	18AE34	Mechanics of Fluids	AE	3	2	0	03	50	50	100	4
06	PC	18AE35	Measurement & Metrology	AE	3	0	0	03	50	50	100	3
07	PC	18AEL36	Material Testing Lab	AE	0	0	2	03	50	50	100	1
08	PC	18AEL37	Machine Shop Lab	AE	0	0	2	03	50	50	100	1
9	HS	18HS31/41	Constitution of India Professional Ethics and Human Rights/Environmental Studies	HS/CIVIL	1	0	0	02	50	50	100	1
10	NC MC	18HS33	Soft Skills (MC)	Humanities	2	0	0	03	50	0	50	P P/
TO	ΓAL				20	08	04	29	50 0	45 0	950	2 4

Cou	irse pr	escribed to late	ral entry Diploma holders admitted to III semes	ter of Engine	ering	prog	grams	5				
11	H	5 18HS34	Placement Training	Humanities	02			03	50	-	50	PP/N P
12	M C	18MAD31	Advance Mathematics-I	Mathematic s	02	01		03	50		50	PP/N P

Note: HODs are informed to accommodate one more laboratory in addition to the above courses if needed, without altering the total number of credits (TOTAL: 24).

(a) **The mandatory non** – **credit courses** Advance Mathematics I and II prescribed at III and IV semesters respectively, to lateral entry Diploma holders admitted to III semester of BE programs shall compulsorily be registered during respective semesters to complete all the formalities of the course and appear for SEE examination.

(b) **The mandatory non – credit courses** Advance Mathematics I and II, prescribed to lateral entrant Diploma holders admitted to III semester of BE programs, are to be completed to secure eligibility to VII semester. However, they are not considered for vertical progression from II year to III year of the programme but considered as head of passing along with credit courses of the programme to eligibility to VII semester.

Note: BC: Science Course, PC: Professional Core. Hu: Humanities, NCMC: Non-Credit Mandatory Course.

Dr. Ambedkar Institute of Technology, Bangalore Scheme of Teaching and Examination 2020 – 21 Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(w.e.f. the academic year 2020-21)

Programme: B.E AERONAUTICAL ENGINEERING

III SEMESTER (continued)

Courses prescribed to lateral entry B.Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE Activity Points to be earned by students admitted to BE/B.Tech/B.Plan day college programme (For more details refer to Chapter 6,AICTE Activity Point Programme, Model Internship Guidelines):

Over and above the academic grades, every Day College regular student admitted to the 4 years Degree Programme and every student entering 4 years Degree Programme through lateral entry, shall earn 100 and 75 Activity Points respectively for the award of degree through AICTE Activity Point Programme. Students transferred from other Universities to fifth semester are required to earn 50 Activity Points from the year of entry to VTU. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. The activities can be spread over the years, anytime during the semester weekends and holidays, as per the liking and convenience of the

student from the year of entry to the programme. However, minimum hours' requirement should be fulfilled. Activity Points (non-credit) have no effect on GPA/CGPA and shall not be considered for vertical progression.

In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

		i	Dr. Ambedkar Institute of Technol SCHEME OF TEACHING AND EXAMINAT B.E AERONAUTICAL E Outcome Based Education (OBE) and Choic IV SEMESTI	FION from Aca NGINEERING Re Based Cred	ademi 3	c Yea			2			
Sl. N o					H	achir Iours Veek			Exam	inatio	n	
	-	ourse and ourse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/	Duration in	CIE Marks	SEE Marks	Total Marks	Credits
01	BC	18MA41	Numerical Methods & Applied Statistics	Mathematic	L 2	T 2	Р	– 03	50	50	L 100	3
01	PC	18AE41	Aerodynamics –I	AE	3	2		03	50	50	100	4
03	PC	18AE42	Aircraft Propulsion	AE	3	0		03	50	50	100	3
04	PC	18AE43		AE	3	0		03	50	50	100	3
05	PC		Mechanisms and Machine Theory	AE		-						3
		18AE44	Aircraft Material Science		3	0		03	50	50	100	-
06	PC	18AE45	Turbomachines	AE	3	0		03	50	50	100	3
07	PC	18AEL46	Computer Aided Aircraft Drawing Lab	AE	2		2	03	50	50	100	3
08	PC	18AEL47	Measurement and Metrology Lab	AE		0	2	03	50	50	100	1
09	HS	18HS41/42	Constitution of India Professional Ethics and Human Rights / Environmental Studies	Hum/Civil	1			02	50	50	100	1
10	NC MC	18HS43	Employability Skills (MC)	Humanities	2			03	50	-	50	PP/N P
			•	TOTAL	20	08	04	29	500	450	950	24
		Course pr	escribed to lateral entry Diploma holders adm	itted to III sen	nester	of E	ngin	eerin	g prog	grams		

11	HS	18HS44	Placement Training	Humanities	02		 03	50	-	50	PP/NP
12	MC	18MAD41	Advance Mathematics-II	Mathematic s	02	01	 03	50		50	PP/NP

Note: HODs are informed to accommodate one more laboratory in addition to the above courses if needed, without altering the total number of credits (TOTAL: 24).

(a) The mandatory non – credit courses Advance Mathematics I and II prescribed at III and IV semesters respectively, to lateral entry Diploma holders admitted to III semester of BE programs shall compulsorily be registered during respective semesters to complete all the formalities of the course and appear for SEE examination.

(b) **The mandatory non – credit courses** Advance Mathematics I and II, prescribed to lateral entrant Diploma holders admitted to III semester of BE programs, are to be completed to secure eligibility to VII semester. However, they are not considered for vertical progression from II year to III year of the programme but considered as head of passing along with credit courses of the programme to eligibility to VII semester.

Note: BC: Science Course, PC: Professional Core. Hu: Humanities, MC: Mandatory Course. ENV: Environmental Studies, CIP: Constitution of India Professional Ethics and Human Rights

Dr. Ambedkar Institute of Technology, Bangalore Scheme of Teaching and Examination 2020 – 21 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (w.e.f. the academic year 2020-21)

Programme: B.E AERONAUTICAL ENGINEERING

IV SEMESTER (continued)

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

			Dr. Ambedkar Institute of Te CHEME OF TEACHING AND EXAM B.E AERONAUTIC Outcome Based Education (OBE) and	INATI AL EN Choice	ON from GINEE Based	n Aca RING	demic	Year 20				
			V SEM		Teach	ing H Week	ours		Exami	ination		
Sl. No		ourse and ourse code	Course Title	Teaching Department	Theory Lecture	L Tutorial	Hractical Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	HS	18HS51/5 2	Management and Entrepreneurship/Intellectual	Hu	3	0		03	50	50	100	3
2	PC	18AE51	Aerodynamics-II	AE	3	2		03	50	50	100	4
3	PC	18AE52	Aircraft Structures-I	AE	3	2		03	50	50	100	4
4	PC	18AE53	Introduction to Composite Materials	AE	3			03	50	50	100	3
5	PC	18AE54	Aircraft Systems & Instrumentation/ Theory of Vibrations	AE	3			03	50	50	100	3
6	PC	18AE55X	Professional Elective-I	AE	3			03	50	50	100	3
7	OE	18AE56X	Open Elective -A	AE	3			03	50	50	100	3
8	PC	18AEL57	Aerodynamics Lab	AE			2	03	50	50	100	1
9	PC	18AEL58	Energy Conversion & Fluid Mechanics Lab	AE			2	03	50	50	100	1
	1	1	TOTAL	I	21	04	4	27	450	450	900	25

10	HS	18HS55	Placement Training	Hu	02	 	03	50	-	50	PP/ NP
Note:	Hu: Hu	manities, PC: I	Professional Core, MC: Mandatory Course	•							•

Course code under	Professional Elective - 1	OPEN ELECTIVE –A
18AE55X		
18AE551	Unmanned aerial vehicle	Students can select any one of the open electives (Please refer to
18AE552	Space mechanics	consolidated list of Dr AIT for open electives) offered by any
18AE553	Aircraft system and instrumentation	Department.
		Selection of an open elective is not allowed provided,
		• The candidate has studied the same course during the previous
		semesters of the programme.
	OPEN ELECTIVE – A	• The syllabus content of open elective is similar to that of
18AEE01	Elements of Aeronautics	Departmental core courses or professional electives.
		• A similar course, under any category, is prescribed in the
		higher semesters of the programme.
		Registration to electives shall be documented under the guidance
		of Programme Coordinator / Mentor.

			Dr. Ambedkar Institute of Technolo CHEME OF TEACHING AND EXAMINATI B.E AERONAUTICAL EN Outcome Based Education (OBE) and Choice	ON from GINEE	n Aca RING	demi	c Year 2					
			VI SEMESTE	R		U		1				
				t l		hing /Wee	Hours k		Exam	inatio	n	
Sl. No	_	ourse and ourse code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in	CIE Marks	SEE Marks	Total Marks	Credits
					L	Τ	Р	Q	C C	S		
1	HS	18HS61/62	Management & Entrepreneurship / Intellectual Property Rights	Hu	3	-	-	03	50	50	100	3
2	PC	18AE61	Aircraft Performance	AE	3	-		03	50	50	100	3
3	PC	18AE62	Aircraft Structures II	AE	3	2		04	50	50	100	4
4	PC	18AE63	Finite Element Method	AE	3	2		03	50	50	100	4
5	PE	18AE64X	Professional Elective -2	AE	3			03	50	50	100	3
6	OE	18AE65X	Open Elective -B	AE	3			03	50	50	100	3
7	PC	18AEL66	Aircraft propulsion Laboratory	AE			2	03	50	50	100	1
8	PC	18AEL67	Aircraft strucutures Laboratory	AE			2	03	50	50	100	1
9	MP	18AEMP68	Mini-project	AE			2	03	50	50	100	2
10	INT	18AEI69	Industry Internship	(To be the inte of VI /	ervenin	g vac	ations					
			Ĩ	TOTAL	18	04	06	27	450	450	900	24

10	HS	18HS66	Placement Training	Hu	02			03	50	-	50	PP/NP
Note:	PC: P	rofessional co	re, PE: Professional Elective, OE: Open Elect	ive, MP	: Mini	-proj	ect, IN	Γ: Int	ernshi	р.		
Intern	Internship: All the students admitted to III year of BE/B. Tech have to undergo mandatory internship of 4 weeks during the vacations of											
VI and VII semesters and /or VII and VIII semesters. A University examination will be conducted during VIII semester and prescribed												

credit are added to VIII semester. Internship is considered as a head of passing and is considered for the award of degree. Those, who do not take-up/complete the internship will be declared as failed and have to complete during subsequent University examination after satisfy the internship requirements.

Course code	Professional Electives - 2	OPEN ELECTIVE –B
18AE641 18AE642 18AE643	Unmanned aerial vechile Numerical methods Gas turbine technology OPEN ELECTIVE – B	 Students can select any one of the open electives (Please refer to consolidated list of Dr AIT for open electives) offered by any Department. Selection of an open elective is not allowed provided, The candidate has studied the same course during the previous semesters of the programme.
18AE65X	Unmanned aerial vechile	 The syllabus content of open elective is similar to that of Departmental core courses or professional electives. A similar course, under any category, is prescribed in the higher semesters of the programme. Registration to electives shall be documented under the guidance of Programme Coordinator / Mentor.

Dr. Ambedkar Institute of Technology, Bangalore Scheme of Teaching and Examination 2022 – 23 Outcome Based Education(OBE) and Choice Based Credit System (CBCS) (w.e.f. the academic year 2020-21)

Programme: B.E AERONAUTICAL ENGINEERING

VI SEMESTER (continued)

Mini-project work:

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini-project can be assigned to an individual student or to a group having not more than 4 students.

CIE procedure for Mini-project:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the Mini-project work, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all the guides of the college.

The CIE marks awarded for the Mini-project, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio

50:25:25.The marks awarded for the project report shall be the same for all the batch mates.

SEE for Mini-project:

(i) Single discipline: Contribution to the Mini-project and the performance of each group member shall be assessed individually in the semester end examination (SEE) conducted at the department.

(ii) Interdisciplinary: Contribution to the Mini-project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belong to.

Internship: All the students admitted to III year of BE/B.Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

			Dr. Ambedkar Instit HEME OF TEACHING AN B.E AERON utcome Based Education (O	D EXAMI NAUTICA	NATIO L ENG hoice B	N fro INEE	m Academi RING	c Year 20				
	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				
SI. No					Theory Lecture	Tutorial	Practical / Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
		1			L	Т	Р	D				
1	MC	18HS71	CMEP/OSHA	IM/CV	2			03	50	50	100	2
2	PC	18AE71	Aircraft Stability & Control	AE	4			03	50	50	100	4
3	PC	18AE72	Flight vechile design	AE	4			03	50	50	100	4
4	PE	18AE73X	Professional Elective - 3	AE	3			03	50	50	100	3
5	PE	18AE74X	Professional Electives - 4	AE	3			03	50	50	100	3
6	OE	18AE75X	Open Elective -C	AE	3			03	50	50	100	3
7	PC	18AEL76	Modelling & Analysis Lab	AE			2	03	50	50	100	1
8	PC	18AEL77	Flight Simulation Lab	AE			2	03	50	50	100	1
9	Project	18AEP78	Project Work Phase - 1	AE			3	03	50	50	100	2

				vacations of semesters) TOTAL 19	VII	and VIII 6	27	450	450	900	23
10	INT	18AEI79	Internship	(If not comp semester examine carried out duri	nations, i						

Internship: All the students admitted to III year of BE/B.Tech have to undergo mandatory internship of 4 weeks during the vacations of VI and VII semesters and /or VII and VIII semesters. A University examination will be conducted during VIII semester and prescribed credit are added to VIII semester. Internship is considered as a head of passing and is considered for the award of degree. Those, who do not take-up/complete the internship will be declared as failed and have to complete during subsequent University examination after satisfy the internship requirements.

Course code	Professional Electives - 3	Open Elective - C							
18AE731	Avionics	Students can select any one of the open electives (Please refer to							
18AE732	Wind tunnel techniques	consolidated list of Dr AIT for open electives) offered by any							
18AE733	Helicopter Dynamics	Department.							
18AE734	Rocket and missiles	Selection of an open elective is not allowed provided,							
		• The candidate has studied the same course during the previous							
		semesters of the programme.							
Course code	Professional Electives - 4	• The syllabus content of open elective is similar to that of							
18AE741	Computational fluid dynamics	Departmental core courses or professional electives.							
18AE742	Boundary Layer Theory	• A similar course, under any category, is prescribed in the higher							
18AE743	Guidance, navigation & control	semesters of the programme.							
18AE744	Flight Testing	Registration to electives shall be documented under the guidance of							
		Programme Coordinator / Mentor.							
	OPEN ELECTIVE – C	FUNDAMENTAL OF AERODYNAMICS							

Dr. Ambedkar Institute of Technology, Bangalore Scheme of Teaching and Examination 2023 – 24 Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(w.e.f. the academic year 2020-21)

Programme: B.E AERONAUTICAL ENGINEERING

VII SEMESTER (continued)

Open Elective -C

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under 20XX75X).

Selection of an open elective shall not be allowed if,

- The candidate has studied the same course during the previous semesters of the programme.
- The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.

• A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

Project work:

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary project can be assigned to an individual student or to a group having not more than 4 students. In extraordinary cases, like the funded projects requiring students from different disciplines, the project student strength can be 5 or 6.

CIE procedure for Project Work Phase - 1:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of the project work phase -1 Report (covering Literature Survey, Problem

identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the Project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

Internship: All the students admitted to III year of BE/B.Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

			VIII SEMESTER Teaching Hours /Week				Examination			
Sl. Course and Course code	Course Title	Teaching Department	Theory Lecture	Tutorial		Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
			L	Т	Р					ļ
1 MC 18HS81	CMEP/OSHA	IM/CV	2			02	50	50	100	2
2 Project 18AEP82	Project Work Phase - 2	AE			3	03	50	50	100	10
3 Seminar 18AES83	Technical Seminar	AE			3	03	50		50	1
4 INT 18AEI84	Internship	vacations of	(Completed during the intervening vacations of VI and VII semesters and /or VII and VIII semesters.)					50	100	2
		TOTAL	02	(6	11	200	200	400	15

examination after they satisfy the internship requirements.

CMEP: Cost Management of Engineering Projects, OSHA: Occupational Safety and Health Administration