AIT/Dean/030/10-11 (1) III-5

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY
BANGALORE – 56

Date: 23.08.2010

Minutes of the 1st Academic Council meeting held on 21st August 2010 at 10.30 am in the Board room of Dr. AIT

Members Present

Sl No	Constitution	Nature	Name
1	The Principal of the College	Chairperson	Dr P.Martin Jebaraj
2	All the Heads of Department in the College	Members	Dr C.Nanjunda Swamy Dr B.M.Nandeeshaiah Dr B.V.Sumangala Dr Meenakshi Dr Shivakumar Prof Siddaraju Dr Rajendra Prof Prabha Prof Manjunath.A.P. Dr K.L.Savitramma Dr V.Bheemaraju Dr Sooryanarayana Rao
3	Four teachers of the college representing different levels of teaching staff by rotation on the basis of seniority of service in the college, to be nominated by the Principal	Members	1)Dr Manjunath Hegde 2)Dr T.Sreenivasulu Reddy 3)Prof G.Devaraju 4)Smt ~~Leena Giri~~ Vijayalaxmi Patil
4	Not less than four experts from outside the college representing such areas as Industry, R and D labs, Technical Education,	Members	1) Dr S. Seetharamu Additional Director CPRI, Bangalore 2) Dr G.R.Nagabhushana Former Chairman HVE, IISc, Bangalore 3) Mr Rajendra Prasad Vice President Electro Systems Associates Pvt Ltd, Bangalore 4) Mr B.N.Satyesh Senior Vice-president Tejas Network Ltd Bangalore

5	Three nominees of the University,	Members	1.Dr T.V.Govindaraju Principal Shirdi Sai Engg College 2.Dr H.R.Yashavanth Principal, SEACE Bangalore 3.Dr V.R.Manjunath Principal Sapthagiri College of Engg Bangalore
6	A faculty member, nominated by the Principal	Member Secretary	Dean (Academic) Dr B.V.Sumangala

Members Absent

1. Dr. G.R. Nagabhushana
2. Dr. Yeshovanth

Principal welcomed all the members of the committee and they were introduced. He explained about the constitution of the committee, tenure of the committee and the duties and responsibilities. He also explained about the courses of the institution going for autonomy and briefed about the various procedures followed to make the institution prepare for the implementation of academic autonomy.

Principal explained the various issues related to academic structure of autonomy at Dr. AIT with reference to the guidelines by VTU. The details of the deliberation made by experts are as follows:-

Agenda 1 :

Recommendations of guidelines to all UG programmes – Autonomy structure, a) Credit system, b) Grading system, c) Eligibility criteria etc.

The following resolutions were made by the committee and the regulations are recommended and was proposed to place in GOVERNING BODY for approval.

a. Credit System

The committee recommended the following credits structure based on VTU guidelines

- BE Degree Programme – Entry in I year
  - 200 Credits
- BE Degree Programme – Entry in II year
  - Lateral Entry
  - 150 Credits (with bridge course – Mathematics)

b. Academic Calendar

The major events with the corresponding period for execution are:-

Main Semester (Odd) : 19 Weeks
Recess : 2 Weeks
Main Semester (Even) : 19 Weeks
Recess : 2 Weeks
Supplementary Semester : 8 Weeks
Recess : 2 Weeks
Total : 52 Weeks.

Make-up examination after the Semester End Examinations (SEE) as per notification.

c. Evaluation Methodology

The evaluation consists of two components

1. Continuous Internal Evaluation – CIE for 50 Marks
2. End Semester Evaluation – SEE for 50 Marks – It is essential to obtain minimum requirement is 40 % in both CIE and SEE to qualify for appearing for examination and to get pass grade in a subject respectively.

d. Grading Methodology

The absolute grading system is adopted in our case. The various grades are generated based on the examination rules out of 100 and is shown in table. These grades are then converted to grade points and the SEPA is determined.

Level	Out-standing	Excellent	Very Good	Good	Average	Poor	Fail
Grade	S	A	B	C	D	E	F
Grade Points	10	09	08	07	05	04	00
Score (Marks) Range (%)	90-100	75-89	60-74	50-59	45-49	40-44	<40

Grades
- W – Withdrawal of any course
- I – Not writing SEE for a genuine reason
- X – Scoring >80% in CIE but getting F (fail) grade in SEE

e. Eligibility Criteria

A student can carry 4 subjects at the end of any even semester which includes
- Failed subjects and
- 'Not Eligible' subjects to write SEE due to shortage of marks in CIE(< 20 marks) or shortage of attendance (< 85%)

Agenda 2. Recommendation of BOS committees for various Departments

The Board of Studies for all the 13 Departments were formed and placed in GB for approval

Agenda 3 : Recommendations for common BOE for I year
It was proposed to have a common Board of Examiners for I year.

Agenda 4 : Recommendations for all rules and regulations pertaining to Examination
After fully going through the document the examination rules and regulations are recommended by Academic Council

Agenda 5 : Any Other subject

Dr Govindaraju suggested to increase the minimum requirement for CIE for practicals.

DEAN (ACADEMIC)

Principal
Dr. Ambedkar Institute of Technology
Bangalore-560 056

Dr. Ambedkar Institute of Technology

Department of Industrial Engineering and Management

The Enclosed Document is Verified and Approved.

HOD

Professor & HOD
Dept. of Industrial Engineering & Management
Dr. Ambedkar Institute of Technology
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Mallathahalli, Bangalore-560 056

Dr. Ambedkar Institute of Technology, Bengaluru-560056
Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (As per NEP 2020)
Scheme of Teaching and Examination for I Semester B.E., (Common to all B.E. Programmes) Academic Year:2021-22

Chemistry Cycle: I Semester

Sl. No.	Course Category	Course Code	Course Title	Teaching Department	Teaching Hrs/ Week					Examination				Credits
					L	T	P	S	Total	Duration (Hrs)	CIE Marks	SEE Marks	Total Marks	
1	BS	21MAT101	Calculus and Differential Equations	Mathematics	3	2	0	0	5	3	50	50	100	4
2	BS	21CHT102	Engineering Chemistry	Chemistry	3	0	0	0	3	3	50	50	100	3
3	ES	21CST103	Problem solving through Programming	Computer Science	2	2	0	0	4	3	50	50	100	3
4	ES	21ECT104	Basic Electronics and Communication Engineering	Electronics	2	2	0	0	4	3	50	50	100	3
5	ES	21MET105	Elements of Mechanical Engineering	Mechanical	2	0	2	0	4	3	50	50	100	3
6	BS	21CHL106	Engineering Chemistry Laboratory	Chemistry	0	0	2	0	2	3	50	50	100	1
7	ES	21CSL107	Computer Programming Laboratory	Computer Science	0	0	2	0	2	3	50	50	100	1
8	HS	21HST108	Communicative English	Humanities	1	0	1*	0	2	2	50	50	100	1
9	AE	21CVT109	Rural Development Engineering	Civil	1	0	1*	0	2	2	50	50	100	1
10	MC	21HSN110	Career Development skill-I	Humanities	1	0	1*	0	2	----	50	--	PP/NP	0
									Total	30		500	450	900	20

Note: BS: Basic Science Course, ES: Engineering Science Course,HS: Humanities & Social Science Course,
AE: Ability Enhancement Course, MC: Mandatory Course, * No practical evaluation,
L: Lecture, T:Titorial, P:Practical/drawing, S:Self study, CIE: Continuous Internal Evaluation, SEE: Semester End Examination

Dr. Ambedkar Institute of Technology, Bengaluru-560056

Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (As per NEP 2020)

Scheme of Teaching and Examination for II Semester B.E., (Common to all B.E. Programmes) Academic Year:2021-22

Physics Cycle: II Semester

Sl. No.	Course Category	Course Code	Course Title	Teaching Department	Teaching Hrs/ Week					Examination				Credits
					L	T	P	S	Total	Duration (Hrs)	CIE Marks	SEE Marks	Total Marks	
1	BS	21MAT201	Advanced Calculus and Numerical Methods	Mathematics	3	2	0	0	5	3	50	50	100	4
2	BS	21CHT202	Engineering Chemistry	Chemistry	3	0	0	0	3	3	50	50	100	3
3	ES	21CST203	Problem solving through Programming	Computer Science	2	2	0	0	4	3	50	50	100	3
4	ES	21ECT204	Basic Electronics and Communication Engineering	Electronics	2	2	0	0	4	3	50	50	100	3
5	ES	21MET205	Elements of Mechanical Engineering	Mechanical	2	0	2	0	4	3	50	50	100	3
6	BS	21CHL206	Engineering Chemistry Laboratory	Chemistry	0	0	2	0	2	3	50	50	100	1
7	ES	21CSL207	Computer Programming Laboratory	Computer Science	0	0	2	0	2	3	50	50	100	1
8	HS	21HST208	Professional writing skills in English		1	0	1*	0	2	2	50	50	100	1
9	AE	21CVT209	Rural Development Engineering	Civil	1	0	1*	0	2	2	50	50	100	1
10	MC	21HSN210	Career Development skill-II	Humanities	1	0	1*	0	2	----	50	--	PP/NP	0
									Total	30		500	450	900	20

Note: BS: Basic Science Course, ES: Engineering Science Course,HS: Humanities & Social Science Course,
AE: Ability Enhancement Course, MC: Mandatory Course, * No practical evaluation,
L: Lecture, T:Titorial, P:Practical/drawing, S:Self study, CIE: Continuous Internal Evaluation, SEE: Semester End Examination

III SEMESTER

Sl. No	Course and Course Code		Course Title	Teaching Department	Teaching Hours /Week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	BC	18MA31	Transforms and Boundary Value Problems	Mathematics	2	2	--	03	50	50	100	3
2	PC	18IM31	Mechanical Measurements and Metrology		3	0	--	03	50	50	100	3
3	PC	18IM32	Material Science and Metallurgy		3	0	--	03	50	50	100	3
4	PC	18IM33	Thermal and Fluids Engineering		3	2	--	03	50	50	100	4
5	PC	18IM34	Manufacturing Technology		3	0	--	03	50	50	100	3
6	PC	18IM35	Mechanics of Materials		3	0	--	03	50	50	100	3
7	PC	18IM36	PYTHON Programming		2	0	--	02	50	50	100	2
8	PC	18IML37	PYTHON Programming Laboratory		--	---	2	03	50	50	100	1
9	PC	18IML39	Manufacturing Technology Laboratory		--	---	2	03	50	50	100	1
10	HS	18HS31/32	Constitution of India Professional Ethics and Human Rights/ / Env. Studies	HS/ CV	1	--	--	02	50	50	100	1
11	MC	18HS33	Soft skills (MC)	Humanities	04	-	--	03	50	-	50	0
TOTAL					**19**	**04**	**06**	**34**	**550**	**550**	**1100**	**24**
Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs												
12	MC	18MAD31	Basic Engg. Mathematics - I	Mathematics	02	01	--	03	50		50	0

Note: BC: Science Course, PC: Professional Core. HS: Humanities, MC: Mandatory Course.

IV SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	BC	18MA41	Numerical Methods & Applied Statistics	Mathematics	2	2	--	03	50	50	100	3
2	PC	18IM41	Work-study and Ergonomics		4	0	--	03	50	50	100	4
3	PC	18IM42	Theory of Machines		2	2	--	03	50	50	100	3
4	PC	18IM43	Engineering Economy		2	2	--	03	50	50	100	3
5	PC	18IM44	Statistics for Engineers		4	0	--	03	50	50	100	4
6	PC	18IM45	CAMD		3	0	--	03	50	50	100	3
7	PC	18IML46	Work-study and Ergonomics Laboratory		--		2	03	50	50	100	1
8	PC	18IML47	Mechanical Measurements and Metrology Laboratory		--	---	2	03	50	50	100	1
9	PC	18IML48	Material Testing Laboratory		--		2	03	50	50	100	1
10	HS	18HS41/42	Constitution of India Professional Ethics and Human Rights/ Env. Studies	HS/ CV	1	--	--	02	50	50	100	1
11	MC	18HS43	Employability skills (MC)	Humanities	04	-	--	03	50	-	50	0
				TOTAL	**19**	**06**	**04**	**26**	**450**	**450**	**900**	**24**
Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs												
12	MC	18MAD41	Basic Engg. Mathematics - II	Mathematics	02	01	--	03	50		50	0

Note: BC: Science Course, PC: Professional Core. HS: Humanities, NCMC: Non-Credit Mandatory Course.
ENV: Environmental Studies, CIP: Constitution of India Professional Ethics and Human Rights

V SEMESTER												
Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	HS	18HS51/52	M&E / IPR (title as per BOS decision)	HS	3	-	--	03	50	50	100	3
2	PC	18IM51	Operations Research		3	2	--	03	50	50	100	4
3	PC	18IM52	Computer Integrated Manufacturing		2	2	--	03	50	50	100	3
4	PC	18IM53	Design of Machine Elements		3	2	--	03	50	50	100	4
5	PC	18IM54	Quality Assurance and Reliability		2	2	--	03	50	50	100	3
6	PE	18IM55X	Professional Elective -1		3	--	--	03	50	50	100	3
7	PC	18IME01	Open Elective- A		3	--	--	03	50	50	100	3
8	PC	18IML56	Quality Engineering Laboratory		--	--	2	03	50	50	100	1
9	PC	18IML57	Computer Integrated Manufacturing Laboratory		--	--	2	03	50	50	100	1
TOTAL					**18**	**10**	**4**	**24**	**400**	**400**	**800**	**25**

Note: HS: Humanities, PC: Professional Core, MC: Mandatory Course,

Electives

Course code	Professional Electives - 1
18IM551	**Advanced Machining Processes**
18IM552	**Marketing Management**
18IM553	**Rapid Prototyping**
18IM554	**Enterprise Resource Planning and e- commerce**
18IM555	**Data Warehousing and Mining**

Course code	Open Elective -A
18IME01	**Operations Research**

VI SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	HS	18HS61/62	M&E/IPR	HS	3	--	--	03	50	50	100	3
2	PC	18IM61	Materials Management		3	--	--	03	50	50	100	3
3	PC	18IM62	Facilities Planning and Design		2	2	--	04	50	50	100	3
4	PC	18IM63	Lean Manufacturing		2	2	--	04	50	50	100	3
5	PC	18IM64	Simulation Modelling and Analysis		2	2	--	04	50	50	100	3
6	PE	18IM65X	Professional Elective - 2		3	--	--	03	50	50	100	3
7	OE	18IME02	Open Elective -B		3	--	--	03	50	50	100	3
8	PC	18IML66	Simulation Laboratory		--	--	2	03	50	50	100	1
9	MP	18IMP67	Mini-project		2	--	--	03	50	50	100	2
10	INT	18IMI68	Industry Internship	(To be carried out during the intervening vacations of VI and VII semesters)				--	--	--	--	--
TOTAL					**18**	**06**	**02**	**30**	**400**	**400**	**800**	**24**

Note: PC: Professional core, PE: Professional Elective, OE: Open Elective, MP: Mini-Project, INT: Internship.

Electives	
Course code	Professional Electives - 2
18IM651	**Project Management**
18IM652	**Maintenance and Safety Engineering**
18IM653	**Composite Materials**
18IM654	**Organizational Behaviour**
18IM655	**Management Information System**

Course code	Open Elective -**B**
18IM661	**Quality Assurance and Reliability**

VII SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	MC	18HS71/ 72	CMEP / OSHA	IM/ CV	2	--	--	03	50	50	100	2
2	PC	18IM71	Operations Management		2	2	--	03	50	50	100	4
3	PE	18IM72	Supply Chain Management		2	2	--	03	50	50	100	4
4	PE	18IM73X	Professional Elective -3		3	--	--	03	50	50	100	3
5	PE	18IM74X	Professional Elective -4		3	--	--	03	50	50	100	3
6	OE	18IM75X	Open Elective - C		3	--	--	03	50	50	100	3
7	PC	18IML76	Statistics Laboratory		--	--	2	03	50	50	100	1
8	PC	18IML77	ERP & OR Laboratory		--	--	2	03	50	50	100	1
9	Project	18IMP78	Project Work Phase - 1		--	--	2	03	50	50	100	2
10	INT		Internship	(If not completed after VI semester examinations, it has to be carried out during the intervening vacations of VII and VIII semesters)				--	--	--	--	--
			TOTAL		**15**	4	**6**	**27**	**450**	**450**	**900**	**23**

Note: PC: Professional Core, PE: Professional Elective, OE: Open Elective, INT: Internship, MC: Mandatory Course

Internship: All the students admitted to III year of BE have to undergo mandatory internship of 4 weeks during the vacations of VI and VII semesters and /or VII and VIII semesters. A SEE examination will be conducted during VIII semester and prescribed credits shall be 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 SEE examination after satisfy the internship requirements.

Electives			
Course code	Professional Electives - 3	Course code	Professional Electives - 4
18IM731	**Project Management**	**18IM741**	**Design of Experiments**
18IM732	**Nanotechnology**	**18IM742**	**Strategic Management**
18IM733	**Human Resource Management**	**18IM743**	**Product Design and Manufacturing**
18IM734	**Database Management System**	**18IM744**	**Total Quality Management**
18IM735	**Technology Management**	**18IM745**	**Industrial Relations and Labour Welfare**
CMEP: Cost Management of Engineering Projects, OSHA: Occupational Safety and Health Administration			

Course code	Open Elective -C
18IM751	**Human Resource Management**

VIII SEMESTER

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P					
1	MC	18HS81/82	CMEP / OSHA	IM/CV	2	--	--	03	50	50	100	2
2	Project	18IMP82	Project Work Phase - 2		--	--	2	03	50	50	100	10
3	Seminar	18IMS83	Technical Seminar		--	--	2	03	50	50	100	1
4	INT	18IMI84	Internship	(Completed during the intervening vacations of VI and VII semesters and /or VII and VIII semesters.)				03	50	50	100	2
			TOTAL		**2**	**--**	**4**	**12**	**350**	**350**	**700**	**15**

Note: PC: Professional Core, PE: Professional Elective, OE: Open Elective, INT: Internship, MC: Mandatory Course

Internship: Those, who have not pursued /completed the internship, will be declared as failed and have to complete during subsequent SEE examination after they satisfy the internship requirements.

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