डॉ. बाबासाहेब आंबेडकर तंत्रशास्त्र विद्यापीठ, लोणेरे

Dr. Babasaheb Ambedkar Technological University, Lonere

(Established under Act No XXIX of 2014 by government of Maharashtra)

विद्याविहार, लोणेरे-रायगड ४०२ १०३ (महाराष्ट्र) Vidyavihar, Lonere - Raigad 402 103 (Maharashtra)

Tel: (02140) 275142 Student Helpline: 02140-275212

Website: www.dbatu.ac.in, E-mail: registrar@dbatu.ac.in

Dr. Bhagwan F. Jogi
Registrar

डॉ. भगवान फ. जोगी
कुलसचिव

Dated:12/ 08/2022

Academic Calendar 2022-23 (Odd Semester) (Engineering)

Sl. No.	Activity	Commencement Date	Concluding Date	Total Days	Engineering
1	Admissions: B.Tech. Second, Third and Final Year; M.Tech. Second year.	September 01, 2022	September 10, 2022	10	UG and PG
2	Commencement of Classes of Second, Third and Final Year	September 01, 2022	December 19, 2022	110	UG and PG
3	Dissertation Examination of the Academic Year 2021-2022	September 01, 2022	September 10, 2022	10	PG
4	Mid-Semester Examinations	October 12, 2022	October 21, 2022	09	UG and PG
5	Submission of Dissertation Proposal to University	October 18, 2022	October 21, 2022	04	PG
6	Display of Mid-Semester Examination Marks	October 28, 2022	October 31, 2022	04	UG and PG
7	Scrutiny of Master's Level Dissertation Work Proposal	November 01, 2022	November 03, 2022	03	PG
8	Exam Form Filling for Regular & Supplementary Examinations	November 01, 2022	November 08, 2022	08	UG and PG
9	Exam Form Filling for Regular & Supplementary Examinations with Late Fee	November 09, 2022	November 15, 2022	07	UG and PG
10	University Tech Fest 2021	November 17, 2022	November 19, 2022	03	UG and PG
11	End of Classes	--	December 19, 2022	110	UG and PG
12	Practical/Project/Seminar Examinations	December 20, 2022	December 23, 2022	04	UG and PG
13	Uploading Internal, Mid Semester, Practical, Project and Seminar marks on University portal	December 22, 2022	December 24, 2022	03	UG and PG
14	End Semester Regular & Supplementary Examination	December 26, 2022	January 21, 2023	26	UG and PG
15	Internship/Industrial Training#				
16	Vacation	January 1, 2023	January 20, 2023	20	Faculty and Staff

डॉ. बाबासाहेब आंबेडकर तंत्रशास्त्र विद्यापीठ, लोणेरे
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कुलसचिव

Date: 12/08/2022

17	Commencement of Classes	February 1, 2023	May 31, 2022	120	UG and PG
18	Remedial Examination	February 21, 2023	March 3,2023	10	UG and PG

#Industrial training will be carried out after completion of odd semester or in the staggered manner in the period of entire odd semester (Preferably on Saturdays, Sundays and Holidays) and partially in the vacation after odd semester. Another option could be permit the training in online mode which is not less than 120 hours.

Table 2 : List of Festivals / Holidays

Sl. No.	Festivals / Holidays	Date
1	Dasara	Wednesday, 05 October, 2022
2	Diwali Laxmi Pujan	Monday, 24 October, 2022
3	Diwali Balipratipada	Wednesday, 26 October, 2022
4	Guru Nanak Jayanti	Tuesday, 08 November, 2022

Table 3 : Following Holidays fall on Sunday

Sl. No.	Festivals / Holidays	Date
1	Mahatma Gandhi Jayanti	02 October, 2022
2	Id-E-Milad	09 October, 2022
3	Christmas	25 December, 2022

12.08.2022

(Dr. B. F. Jogi)
Registrar

P.E.S. College of Engineering, Aurangabad

Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 BATU (F. Y. B. Tech. Semester-I)

14th - 19th Nov. 2022	**Induction Program.**
21st Nov. 2022	**Commencement of F.Y. B. Tech. classes.**
26th Nov. 2022	Display weekly defaulters list and communication to the parents.
3rd Dec. 2022	Display weekly defaulters list and communication to the parents.
10th Dec. 2022	Display weekly defaulters list and communication to the parents.
17th Dec. 2022	Display weekly defaulters list and communication to the parents.
19th - 24th Dec. 2022	**Commencement of CA-I Test of F.Y. B. Tech.**
21st Dec. 2022	**Monthly academic Review.**
24th Dec. 2022	Display weekly defaulters list and communication to the parents.
31st Dec. 2022	Display weekly defaulters list and communication to the parents.
2nd Jan. 2023	**Display CA-I Marks & Submit to Class Teacher.**
7th Jan. 2023	Display weekly defaulters list and communication to the parents.
14th Jan.2023	Display weekly defaulters list and communication to the parents.
16th - 21st Jan. 2023	**Mid Semester Examinations.**
21st Jan. 2023	**Monthly academic Review.**
21st Jan 2023	Display weekly defaulters list and communication to the parents.
26th Jan. 2023	**Republic Day**
28th Jan. 2023	Display weekly defaulters list and communication to the parents.
2nd Jan. 2023	**Display the MSE Marks & Submit to Class Teacher.**
4th Feb.2023	Display weekly defaulters list and communication to the parents.
11th Feb. 2023	Display weekly defaulters list and communication to the parents.
18th Feb. 2023	Display weekly defaulters list and communication to the parents.
19th Feb. 2023	**Chhatrapati Shivaji Maharaj Jayanti**
20th - 25th Feb.2023	**Commencement of CA-II Test of F.Y. B. Tech.**
21st Feb.2023	**Monthly academic Review.**
25th Feb.2023	Display weekly defaulters list and communication to the parents.
3rd March 2023	**Display CA-II Marks & Submit to Class Teacher.**
4th March 2023	Display weekly defaulters list and communication to the parents.
11th March 2023	Display weekly defaulters list and communication to the parents.
18th March 2023	Display weekly defaulters list and communication to the parents.
21st March 2023	**Monthly academic Review.**
25th March 2023	Display weekly defaulters list and communication to the parents.
31st March 2023	**End of Classes.**
3rd - 10th April 2023	**Practical/oral Examination.**
14th April 2023	**Dr. Babasaheb Ambedkar Jayanti.**
12th – 26th April 2023	**End Semester Examination.**

Principal

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 DBATU (S.Y., T.Y, Final Year, Semester-I)

1st - 10th Sept. 2022	Admission (B. Tech. Second, Third, Final, M. Tech-II)
5th Sept. 2022	**Commencement of classes of Second, Third, Final Year.**
1st - 10th Sept. 2022	Dissertation Examination of the Academic year 2021-22.
26th Sept.- 1st Oct. 2022	**Commencement of CA-I Examination.**
2nd Oct. 2022	Mahatma Gandhi Jayanti.
3rd - 7th Oct. 2022	**Display of CA-I Examination Marks.**
5th Oct. 2022	Dasara
6th Oct. 2022	Monthly Academic Review.
9th Oct. 2022	Id-E-Milad.
12th – 21st Oct. 2022	**Mid –Semester Examination.**
18th - 21st Oct.2022	Submission of Dissertation Proposal to University.
24th Oct. 2022	Diwali Laxmi Pujan.
26th Oct. 2022	Diwali Balipratipada.
28th - 31st Oct. 2022	**Display of Mid Semester Examination Marks.**
1st –8th Nov. 2022	Exam Form filling for regular and supplementary Exam.
5th Nov. 2022	Monthly Academic Review.
8th Nov. 2022	Guru Nanak Jayanti.
9th - 15th Nov. 2022	Exam Form filling for regular and supplementary Exam with late fees.
17th - 19th Nov. 2022	University Tech Fest.
21st - 26th Nov. 2022	**Commencement of CA-II Examination.**
28th - 30th Nov. 2022	**Display of CA-II Examination Marks.**
5th Dec. 2022	Monthly Academic Review.
19th Dec. 2022	**End of Classes.**
20th - 23rd Dec. 2022	**Practical/Project/Seminar Examinations.**
22nd - 24th Dec.2022	**Uploading internal, Mid Semester, Practical, Project & Seminar Marks to University portal.**
25th Dec. 2022	Christmas.
1st - 20th Jan. 2023	**Vacation.**
26th Dec. 2022 - 21st Jan. 2023	**End Semester &Supplementary Examination.**
22nd - 31st Jan. 2023	Internship/Industrial Training.
21st Feb. - 3rd March 2023	Remedial Examinations.

Principal

P.E.S. College of Engineering

Nagsenvan, Aurangabad

Department of Civil Engineering

ACADEMIC CALENDAR 2022-2023 BATU (S.Y, T.Y , B.Tech, Semester-I)

1st – 10th September 2022	Admission (B.Tech, SY, TY, Final year, Mtech)
5th September 2022	Commencement of classes of SY, TY, Finalyear
1st -10th September 2022	Dissertation examination of academic year 2021-22
2nd October	Mahatma Gandhi Jayanthi
5th October 2022	Dashera
6th October 2022	Monthly Academic review
9th October 2022	Eid-E -Milad
17-21 October 2022	Commencement of CA-I Examination
18-21 October 2022	Submission of Dissertation proposal to university
24th October 2022	Diwali Pujan
26TH October 2022	Diwali Balipratipada
28th – 31st October 2022	Display of MID Term Examination Marks
25th -26th October 2022	Display of CA-I Examination Marks
1st – 8th November 2022	Exam form filling for regular and supplementary exam
5th November 2022	Monthly Academic review
8th November 2022	Gurunanak Jayanti
9th – 15th November 2022	Exam form filling for regular and supplementary exam with late fees
17th – 23rd November 2022	Mid Term Examination
17th – 19th November 2022	University Tech fest
12st – 16th December 2022	Commencement to CA-2 examination
18th -19th December 2022	Display of CA-II Examination Marks
5th December 2022	Monthly academic review
19th December 2022	End of classes
20th -23rd December 2022	Practical/Oral/Project/ Seminar Examination
22nd -24th December 2022	Uploading internal MID sem, practical/ project, seminar marks to university portal
25th December 2022	Christmas
1st – 20th January 2023	Vacation
26th December 2022- 21st January 2023	End semester supplementary exam
22nd 31st January 2023	Internship/ industrial training
21 February 3rd march 2023	Remedial examination

Dr. R. M. Sawant
Professor & Head
Department of Civil Engineering
P.E.S. College of Engineering

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Tel : (02140) 275142 Student Helpline : 02140-275212
स्वातंत्र्याचा अमृत महोत्सव

Dr. Bhagwan F. Jogi
Registrar

डॉ. भगवान फ. जोगी
कुलसचिव

DBATU /REGI/AC / 2022 /134/A Dated: 17/02/2023

Academic Calendar–UG Sem. VI & VIII Revised(AY 2022–23)

Sr. No.	Activity	Commencement Date	Concluding Date	Total Days	Level
1	Commencement of Classes	20th Feb 23	30th May 23	100	UG
2	Mid Semester Examination	10th April 2023	15th Apr 23	05	UG
3	End of Classes		30th May 23		UG
4	End Semester Examination	1st June 23	10th June 23	10	UG
5	Practical/Project/Seminar Examination	11th June 23	20th June 23	03	UG
6	Result Declaration		15th July 23		
7	Commencement of Classes for Next semester	20th July 23			

Holiday	18 Feb – Mahashivratri 19 Feb – Chatrapati Shivaji Maharaj Jayanti 7 March – Dhulivandan 22 March – Gudi Padwa 30 March – Ram Navami 4 April – Mahavir Jayanti 7 April – Good Friday	14 April – Dr Babasaheb Ambedkar Jayanti 22 April – Ramzan Eid 1 May – Maharashtra Din 5 May – Buddha Pournima 29 June – Bakari Eid

Dr. B. F. Jogi
Registrar
REGISTRAR
Dr. Babasaheb Ambedkar Technological Universit
LONERE 402 103,
Tal Mangaon, Dist. Raigad, (Maharashtra)

Copy submitted for information: Office of Hon'ble Vice-Chancellor
Copy to:
1. All heads of departments
2. Affiliated Institutes
3. Academic Section
4. Controller of Examinations

Dr. Babasaheb Ambedkar Tech. University LONERE RAIGAD Maharashtra

डॉ. बाबासाहेब आंबेडकर तंत्रशास्त्र विद्यापीठ, लोणेरे
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Dr. Bhagwan F. Jogi
Registrar

डॉ. भगवान फ. जोगी
कुलसचिव

DBATU /REG/ AC / 2023 / 366/A Dated: 18 /03/ 2023

Academic Calendar – UG Sem. IV Revised (AY 2022 – 23)

Sr. No.	Activity	Commencement Date	Concluding Date	Total Days	Level
1	Commencement of Classes	20th March 23	20th June 23	90	UG
2	Mid Semester Examination	8th May 2023	12th May 23	05	UG
3	End of Classes		20th June 23		UG
4	End Semester Examination	21st June 23	30th June 23	10	UG
5	Practical/Project/Seminar Examination	1st July 23	10th July 23	04	UG
6	Result Declaration		30th July 23		
7	Commencement of Classes for next semester	1st Aug. 23			
Holiday	18 Feb – Mahashivratri 19 Feb – Chatrapati Shivaji Maharaj Jayanti 7 March – Dhulivandan 22 March – Gudi Padwa 30 March – Ram Navami 4 April – Mahavir Jayanti 7 April – Good Friday		14 April – Dr Babasaheb Ambedkar Jayanti 22 April – Ramzan Eid 1 May – Maharashtra Din 5 May – Buddha Pournima 29 June – Bakari Eid		

1) All Sundays to be made working except public holidays.
2) Institute may allot additional lectures than prescribed to cover the syllabus.

Dr. Babasaheb Ambedkar Tech. University LONERE RAIGAD Maharashtra

Dr. B. F. Jogi
REGISTRAR
Registrar
Dr. Babasaheb Ambedkar Technological University
LONERE 402 103,
Tal. Mangaon, Dist. Raigad, (Maharashtra)

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 DBATU (F.Y.B. Tech., Semester-II)

1st April 2023	**Commencement of classes.**
4th April 2023	Mahavir Jayanti
7th April 2023	Good Friday
8th April 2023	Display weekly defaulters list and Communicate to the parents.
14th April 2023	**Dr. Babasaheb Ambedkar Jayanti**
15th April 2023	Display weekly defaulters list and Communicate to the parents.
22nd April 2023	Ramzan Eid
22nd April 2023	Display weekly defaulters list and Communicate to the parents.
24th - 29th April 2023	**Annual Social Gathering.**
29th April 2023	Display weekly defaulters list and Communicate to the parents.
1st May 2023	Maharashtra Din
1st May 2023	Monthly Academic Review.
5th May 2023	Buddha Pournima
6th May 2023	Display weekly defaulters list and Communicate to the parents.
8th – 12th May 2023	**Mid –Semester Examination.**
13th May 2023	Display weekly defaulters list and Communicate to the parents.
15th- 19th May 2022	**Display of Mid Semester Examination Marks.**
20th May 2023	Display weekly defaulters list and Communicate to the parents.
22nd - 27th May 2023	**Commencement of CA-I Examination.**
27th May 2023	Display weekly defaulters list and Communicate to the parents.
29th -31st May 2023	**Display of CA-I Examination Marks.**
1st June 2023	Monthly Academic Review.
3rd June 2023	Display weekly defaulters list and Communicate to the parents.
5th - 10th June 2023	**Commencement of CA-II Examination.**
10th June 2023	Display weekly defaulters list and Communicate to the parents.
12th - 17th June 2023	**Display of CA-II Examination Marks.**
17th June 2023	Display Final defaulters list and Communicate to the parents.
20th June 2023	**End of Classes.**
29th June 2023	Bakari Eid
21st – 30th June 2023	**End Semester Examination.**
1st - 10th July 2023	**Practical/Project/Seminar Examinations.**
1st August 2023	**Commencement of classes for next semester.**

Note: i) All Saturday and Sunday are working.

ii) Allot the additional theory and practical's than the prescribed structure to cover the syllabus.

Dean Academics

6/9/23
Principal

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 DBATU (S.Y.B. Tech., Semester-IV)

13th March 2023	Academic Starts
20th March 2023	Commencement of classes.
22nd March 2023	Gudi Padwa
30th March 2023	Ram Navami
4th April 2023	Mahvir Jayanti
7th April 2023	Good Friday
14th April 2023	Dr. Babasaheb Ambedkar Jayanti
10th -15th April 2023	**Commencement of CA-I Examination.**
20th April 2023	Monthly Academic Review.
17th-22nd April 2022	**Display of CA-I Examination Marks.**
22nd April 2023	Ramzan Eid
24th -29th April 2023	**Annual Social Gathering.**
1st May 2023	Maharashtra Din
5th May 2023	Buddha Pournima
20th May 2023	Monthly Academic Review.
22nd – 26th May 2023	**Mid –Semester Examination.**
1st -3rd June 2023	**Display of Mid Semester Examination Marks.**
12th – 17th June 2023	**Commencement of CA-II Examination.**
20th June 2023	Monthly Academic Review.
19th – 24th June 2023	**Display of CA-II Examination Marks.**
29th June 2023	Bakari Eid
8th July 2023	**End of Classes.**
9th - 10th July 2023	**Practical/Project/Seminar Examinations.**
20th -29th July 2023	**End Semester Examination.**
1st August 2023	**Commencement of classes for next semester.**

Note: i) All Saturday and Sunday are working.

ii) Allot the additional theory and practical's than the prescribed structure to complete the syllabus.

iii) Prepare weekly Defaulters list and communicate to the concern parents.

Dean Academics

P/. circulate

Principal

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 DBATU (T.Y & Final Year, Semester-VI, VIII)

1st Feb. 2023	**Academic Start**
18th Feb. 2023	Mahashivratri
19th Feb. 2023	Chatrapati Shivaji Maharaj Jayanti
20th Feb.2023	**Commencement of classes of Third & Final Year.**
7th March 2023	Dhulivandan
13th -18th March 2023	**Commencement of CA-I Examination.**
20th March 2023	Monthly Academic Review.
22nd March 2023	Gudi Padwa
20th -25th March 2022	**Display of CA-I Examination Marks.**
27th March -1st April 2023	**Mid –Semester Examination.**
30th March 2023	Ram Navami
3rd - 8th April 2023	**Display of Mid Semester Examination Marks.**
4th April 2023	Mahvir Jayanti
7th April 2023	Good Friday
14th April 2023	Dr. Babasaheb Ambedkar Jayanti
20th April 2023	Monthly Academic Review.
22nd April 2023	Ramzan Eid
24th -29th April 2023	**Annual Social Gathering.**
1st May 2023	Maharashtra Din
5th May 2023	Buddha Pournima
2nd- 5th May 2023	**Commencement of CA-II Examination.**
8th - 13th May2023	**Display of CA-II Examination Marks.**
20th May 2023	Monthly Academic Review.
20th May 2023	**End of Classes.**
25th -27th May 2023	**Practical/Project/Seminar Examinations.**
12th -23rd June 2023	**End Semester Examination.**
29th June 2023	Bakari Eid
17th July 2023	**Commencement of classes for next semester.**

Principal

P.E.S. College of Engineering, Aurangabad

Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 BATU (F. Y. B. Tech. Semester-I)

14th - 19th Nov. 2022	**Induction Program.**
21st Nov. 2022	**Commencement of F.Y. B. Tech. classes.**
26th Nov. 2022	Display weekly defaulters list and communication to the parents.
3rd Dec. 2022	Display weekly defaulters list and communication to the parents.
10th Dec. 2022	Display weekly defaulters list and communication to the parents.
17th Dec. 2022	Display weekly defaulters list and communication to the parents.
19th - 24th Dec. 2022	**Commencement of CA-I Test of F.Y. B. Tech.**
21st Dec. 2022	**Monthly academic Review.**
24th Dec. 2022	Display weekly defaulters list and communication to the parents.
31st Dec. 2022	Display weekly defaulters list and communication to the parents.
2nd Jan. 2023	**Display CA-I Marks & Submit to Class Teacher.**
7th Jan. 2023	Display weekly defaulters list and communication to the parents.
14th Jan.2023	Display weekly defaulters list and communication to the parents.
16th - 21st Jan. 2023	**Mid Semester Examinations.**
21st Jan. 2023	**Monthly academic Review.**
21st Jan 2023	Display weekly defaulters list and communication to the parents.
26th Jan. 2023	**Republic Day**
28th Jan. 2023	Display weekly defaulters list and communication to the parents.
2nd Jan. 2023	**Display the MSE Marks & Submit to Class Teacher.**
4th Feb.2023	Display weekly defaulters list and communication to the parents.
11th Feb. 2023	Display weekly defaulters list and communication to the parents.
18th Feb. 2023	Display weekly defaulters list and communication to the parents.
19th Feb. 2023	**Chhatrapati Shivaji Maharaj Jayanti**
20th - 25th Feb.2023	**Commencement of CA-II Test of F.Y. B. Tech.**
21st Feb.2023	**Monthly academic Review.**
25th Feb.2023	Display weekly defaulters list and communication to the parents.
3rd March 2023	**Display CA-II Marks & Submit to Class Teacher.**
4th March 2023	Display weekly defaulters list and communication to the parents.
11th March 2023	Display weekly defaulters list and communication to the parents.
18th March 2023	Display weekly defaulters list and communication to the parents.
21st March 2023	**Monthly academic Review.**
25th March 2023	Display weekly defaulters list and communication to the parents.
31st March 2023	**End of Classes.**
3rd - 10th April 2023	**Practical/oral Examination.**
14th April 2023	**Dr. Babasaheb Ambedkar Jayanti.**
12th – 26th April 2023	**End Semester Examination.**

Principal

T.Y. B.Tech
Elect II. open channel flow
2022-23

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	Module 1: Open channel flow	
2	Introduction, difference between pipe flow and	
3	open channel flow, types of open channels,	
4	types of flows in open channel, geometric elements	
5	Velocity distribution, measurement of velocity	
6	(Pitot tube and current meter). Discharge through	
7	open channel.	
8	Module 2: Steady and Uniform flow:	
9	chezys and manning's formula, Roughnosity	
10	coefficient, Uniform flow computations, hydraulically	
11	efficient section, considerations for rectangular	
12	triangular, trapezoidal, circular sections.	
13	Module 3: Specific energy	
14	Specific energy, definition and diagram,	
15	concept of critical, subcritical flow, specific	
16	flow, specific discharge, derivation of rela-	
17	tionships and numerical computations.	
18	Module 4: Gradually varied flow.	
19	Definition, classification of channel slopes,	
20	Back water curve and its length, Afflux,	
21	dynamic equation of G.V.F (Assumption and	
22	derivation) classification of G.V.F. profiles-	
23	examples, direct step method, of computation	
24	of G.V.F profiles.	
25	Rapidly varied flow:	
26	Definition, examples, hydraulic jump- pheno-	
27	menon, relation of conjugate depths. loss of	
28	energy. parameters, uses, types of hydraulic jump.	
29	Module 5: Weir and spillway	
30	Introduction, classification, Discharge over	
31	various notches, and weirs (Rectangular,	
32	Triangular, stepped, Broad crested, narrow	
33	crested) velocity of approach, Cipolletti weir,	
34	calibration of weir, time of emptying tank	
35	with weir. Profile of ogee spillway, flow below	
36	gates, most economical section in channels	
37	Rectangular, Trapezoidal, Circular.	
38		
39		
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43		
44		
45		

2022-23

P.E.S. College of engineering

Nagsenvan, Aurangabad

Department of Civil Engineering

SUBJECT: - BTCVC 404 - Water Resource Engineering — Class - Second

SUBJECT TEACHER: - **Prof. S.R. Phulpagar** — Year B. Tech

Lesson Plan

Lect. No.	Topic	Portion Covered	Date
	Module 1: Introduction		
1	Introduction, Definition, Scope, Necessity		
2	Ill-Effects of Irrigation, Advantages, Types of Irrigation Systems		
3	Methods of Distribution of Water, Development of Irrigation in India		
4	Water Requirement of Crops, Base, Delta and Duty, Methods of Improving Duty,		
5	Types of Soil, Types of Soil Water, Soil Moisture, Consumptive Use		
6	Irrigation Frequency, Irrigation Methods, Crops Season, Crop Pattern		
	Module 2: Reservoirs		
7	Planning of Reservoirs: Classification of Reservoir,		
8	Selection of Site for Reservoir,		
9	Investigation Works for Reservoir,		
10	Yield and Capacity of Reservoir,		
11	Mass Curve and Demand Curve		
12	Storage Calculations, Control Levels		
	Module 3: Dams and Hydraulic structures		
13	Difference Between Weir, Barrage and Dam		
14	Gravity Dams – Estimation of Loading, Design Criteria		
15	Causes of Failure of Gravity Dam, Precaution Against Failure		
16	Theoretical And Practical Profile, Stability Calculations, Galleries		
17	Joints and Earth Dams: Components and Their Functions, Design Criterion,		
18	Inverted Filters, Downstream Drainage,		
19	Causes of Failure of Earthen Dam		

20	Arch Dams – Types, Forces on Arch Dam, Introduction and Types of Spillway		
	Module 4: Weirs and Canals		
21	Weirs on Permeable Foundations: Theories of Seepage,		
22	Bligh's Creep Theory, Limitations of Bligh's Creep Theory,		
23	Khosla's Theory,		
24	Piping and Undercutting Canals: Types, Alignment,		
25	Kennedy's and Lacey's Silt Theories,		
26	Canal Losses, Typical Canal Sections,		
27	Canal Lining: Necessity and Types,		
28	Canal Structures: Cross Drainage Works and Canal Regulatory Works		
	Module 5: Hydrology		
29	Introduction to Hydrology: Hydrologic Cycle, Rain, Surface and Ground Water		
30	Measurement of Rainfall, Peak Flow, Base Flow, Precipitation and Its Measurement		
31	Average Depth of Precipitation, Water Losses,		
32	Flood Frequency, Catchment Area Formulae, Flood Hydrograph		
33	Rainfall Analysis, Infiltration, Run Off, Estimation of Runoff		
34	Unit Hydrograph and Its Determination, S- Hydrograph		
	Module 6:		
35	Lift Irrigation, Wells and Tube Wells, Introduction, Classification of Well, Specific Yield,		
36	Deep And Shallow Wells, Comparative Advantage of Well and Canal Irrigation,		
	Duty of Well Water, Types of Tube Wells, Types of Strainers, Boring Methods.		
34	Darcy's Law, Permeability, Safe Yield of Basin.		
35	Lift Irrigation Schemes: Various Components and Their Design Principles (Only Concepts).		
36	Causes of Water Logging, Preventive and Curative Measures, Drainage of Irrigation of Lands, Reclamation of Water Logged,		
37	Alkaline and Saline Lands, Preventive and Curative Measures Water Conservation: Rain Water Harvesting, Ground		
38	Conceptual Introduction to Elaborate Necessity		
39	Implementation of Audit		

40	Water Recharge, Small Scale Techniques of Surface Water Detention Such as: Soil Embankments, Field Ponds, Concrete Bandhara.		

Subject Teacher

TEACHING PLAN - ACADEMIC YEAR 2022-2023

Name of the Institute : **P.E.S College of Engineering**
Name of Subject: Surveying-I
Name of the Faculty: Prof.S. B. Dhule
Branch : **Civil Engineering**

Institute Code No. : 2134
Subject Code: BTCVC 305
Semester: III

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
Module 1	**Chain Surveying**	**8**	
1.1	Definition, principles, classification	1	
1.2	fields and office work, scales, conventional signs,	1	
1.3	survey instruments, their care and adjustment, ranging and chaining,	2	
1.4	reciprocal ranging, setting perpendiculars	2	
1.5	well-conditioned triangles	1	
1.6	traversing, plotting , enlarging and reducing figures	1	
Module 2	**Compass and Plane Table Surveying**	**6+2**	
2.1	Prismatic compass, surveyor's compass bearing systems and conversions	1	
2.2	local attraction, magnetic declination and Dip traversing,	2	
2.3	Adjustment of errors	2	
2.4	Plane table instruments and accessories merits and demerits	1	
2.5	methods: radiation, intersection	1	
2.6	Resection and Traversing	1	
Module 3	**Leveling and Applications**	**8+4**	
3.1	Level line - Horizontal line - Levels and Staves,	1	
3.2	Sprit level – Sensitiveness, Bench marks - Temporary and permanent adjustments	1	
3.3	Fly and Check leveling, Booking, reduction	1	
3.4	Curvature and Refraction – reciprocal leveling	2	
3.5	Longitudinal and cross sections	1	
3.6	Plotting - Contouring - Methods - Characteristics and uses of contours	1	

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
3.7	Plotting - Earth work volume - Capacity of reservoirs	2	
3.8	Planimeter-Types, Theory, concept of zero circle,	1	
3.9	Study of Digital Planimeter, Computation of Areas and Volumes	2	
Module 4	**Theodolite Surveying**	**8**	
4.1	Theodolite - Vernier and micro-optic - Description and uses	1	
4.2	temporary and permanent adjustments of vernier transit	1	
4.3	Angles: Horizontal - Vertical - Heights and Distances	2	
4.4	Traversing - Closing error and distribution	2	
4.5	Gales's table – Omitted measurements	2	
Module 5	**Engineering Surveys**	**8**	
5.1	Reconnaissance, Preliminary and location surveys for engineering projects,	2	
5.2	Layout, Setting out works, Route Surveys for highways	1	
5.3	railways and waterways, introduction to curve ranging	1	
5.4	Mine Surveying - Instrument	2	
5.5	Tunnels: correlation of underground and surface surveys, shafts	2	

S.Y.B.Tech
Engg. Geology.
2022-23

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	Module1: Introduction and physical geology.	
2	Definition, scope and sub-divisions, application of	
3	geology in civil Engineering	
4	Major features of the Earth's structure, internal struct-	
5	ure of earth, and geological work of river: features of	
6	erosion, deposition and transportation, civil engineer-	
7	ing significance. Geological work of wind: process and	
8	features of erosion, deposition and transportation. civil	
9	engineering significance, Volcano: central and fissure	
10	types, Products of volcano. Mountain: origin and	
11	formation.	
12	Module 2: Mineralogy and Petrology.	
13	Mineralogy: Physical properties of mineral, classification	
14	of minerals,	
15	Petrology: Definition, rock cycle, igneous rocks, origin	
16	texture and structures, Classification, concordant and	
17	discordant intrusions. civil engineering significance	
18	secondary rocks: Formation, classification, Residual	
19	deposits: soil, Laterite and Bauxite and their impor-	
20	tance, Secondary Deposits: Formation, Texture, classifica-	
21	tion and structures. Civil engineering significance.	
22	Chemical and organic deposits. Metamorphic rocks:	
23	Agents and types of metamorphism, stress and anti-	
24	stress minerals, structures, products of metamorphism.	
25	Module 3: Structural geology	
26	outcrop, strike and dip, Unconformity types, outlies	
27	and inliers. overlap, fold and Fault: parameters, classi-	
28	fication, causes, Civil engineering significance,	
29	joint: types, civil engineering considerations.	
30	Module 4: Building stones	
31	Properties of rocks, Requirement of good building	
32	stone, Building stones of India.	
33	Groundwater: sources of ground water, water table	
34	zones of groundwater, porosity and permeability.	
35	Module 5: Geology of Dams, Reservoirs, Tunnels and bridges.	
36	Preliminary geological survey, influence of geological con-	
37	ditions on location, alignment, Design and types of Dams	
38	geological considerations in site selection for dams, site improve	
39	ment techniques, dams on carbonate rocks, sedimentary	
40	rocks, folded strata and Deccan trap. favourable and	
41	un favourable geological conditions for reservoir site.	
42	Tunnel and Bridges: influence of geological conditions	
43	on tunneling, difficulties during tunnelling, tunel lining	
44	tunneling in folded strata, sedimentary rocks and	
45	Deccan traps. dependance of types of bridges on geo-	
	logical conditions.	

TEACHING PLAN - ACADEMIC YEAR 2022-2023

Name of the Institute : **P.E.S College of Engineering**
Name of Subject: Concrete Technology
Name of the Faculty: Prof. J. R. Gaikwad
Branch: **Civil Engineering**

Institute Code No. : 2134
Subject Code: BTCVC504
Semester: V

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
Module 1		**4+2**	
1.1	Materials for Concrete: Cement, Manufacturing Process	1	
1.2	Physical Properties, Hydration of Cement, hydration products	1	
1.3	Chemical Compounds in Cement, Types of Cement	1	
1.4	Aggregates: Classification of aggregates,	1	
1.5	Physical Properties, Bulking of Sand, Mechanical Properties,	1	
1.6	Water: Specifications of Water to be used For Concrete	1	
Module 2		**4+2**	
2.1	Properties of Fresh Concrete	1	
2.2	Properties of Fresh Concrete -Types of Batching, Mixing, Transportation, Placing Including Pumping and Compaction Techniques for Good Quality Concrete	1	
2.3	Workability, Factors affecting workability, Methods of Measuring Workability,	1	
2.4	Segregation and Bleeding, setting time,	1	
2.5	Curing of Concrete and Types of curing	1	
2.6	Temperature Effects on Fresh Concrete	1	
Module 3		**4+1**	
3.1	Admixtures In Concrete: Types, Plasticizers and Super-plasticizers and their Effects On Workability	2	
3.2	Air entraining agents, accelerators,	1	
3.3	Retarders, Pozzolanic Admixtures, Green concrete,	1	
3.4	Bonding admixtures, damp-proofing admixtures, construction chemicals	1	
Module 4		**8+2**	
4.1	Desired Properties of Concrete, Strength, Durability &Im-permeability	1	

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
4.2	Characteristic Strength, Compressive, Tensile and Flexure of Concrete	1	
4.3	Bond Strength, Tests on Concrete,	1	
4.4	Modulus of Elasticity, Effect of W/C Ratio and admixtures on Strength	1	
4.5	Types of concrete, High Strength and High Performance Concrete Creep and Shrinkage of Concrete	1	
4.6	Significance, Types of Shrinkage and Their Control	1	
4.7	Factors Affecting Creep. Durability of Concrete:	1	
4.8	Minimum & Maximum Cement Content, Strength & Durability Relationship, Exposure to Different Conditions	1	
4.9	Factors Contributing to Cracks in Concrete, Sulphate Attack, Alkali Aggregate Reaction (AAR)	1	
4.10	Factors affecting on AAR, Deteriorating effects of AAR, Chloride Attack, Corrosion of Steel (Chloride Induced)	1	
Module 5		**4+4**	
5.1	Concrete mix design	2	
5.2	Nominal mix concrete, factors governing mix design,	1	
5.3	Methods of Expressing Proportions, Trial Mixes, Acceptance Criteria	1	
5.4	Factors causing variations, field control, statistical quality control	1	
5.5	Quality Measurement in Concrete Construction	1	
5.6	Non-destructive Testing of Concrete	2	

SUBJECT TEACHER

HEAD OF DEPARTMENT

SBD – 22-23
Sem II

P.E.S.College of Engineering

Department Of Civil Engineering

Teaching plan

Academic Year (TY): 2022-23

BTCVC502: Geotechnical Engineering

Teaching Schemes
Lec: 03 Hrs / Week TU:01 Practical: 04 Hrs / Week
Class Test: 20 Marks

Examination Schemes
Theory: 80 Marks;

Sr. No.	Unit	content	Lect.Hrs
1	Unit-I	Introduction Definition of soil and soil engineering	8
		Application areas of soil mechanics,	
		Three Phase system	
		Numericals	
		Soil moisture, Soil minerals	
		Effective and neutral pressure	
		Numericals	
		Numericals	
2	Unit-II	Soil Consistency Index properties of soil:	10
		Different unit weights of soil, and their determination	
		unit weight of solids, unit weights of soil mass	
		Numericals method for determination of field density viz. sand replacement and core cutter,	
		Specific Gravity determination methods void ratio and porosity, degree of saturation,	
		Inter relation between weight volume state,	
		density indexes, Atterberg's limits and their significance, Numericals	
		Soil Classification: Soil classification based on particle size and consistency,	
		I.S. classification system Numericals	
3	Unit III	Flow of Water Through Soil: Permeability Head, gradient and potential,	10
		Darcy's law, Factors affecting permeability,	
		Field and Laboratory methods of determining permeability,	
		Seepage pressure, quick sand condition,	
		Derivation of Laplace equation, Numerical	
		Flow net: characteristics& application	
		construction of flow net	
		piping phenomenon, Permeability through stratified soil,	
		Discharge and seepage velocity	
		Numerical	
4	Unit IV	: Shear Strength Concept of shear,	10
		Coulomb's theory and failure envelope	
		Principle stress, stress analysis (Total stress approach and effective stress	
		representation of stresses on Mohr's circle for different types of soil such as cohesive and cohesionless,	
		saturated and partly saturated soil etc	
		Application of shear stress parameters in the field,	
		Different types of shear tests: Unconsolidated undrained, Consolidated undrained and	

SBD – 22-23
Sem II

P.E.S.College of Engineering

Department Of Civil Engineering

Teaching plan

Academic Year (TY): 2022-23

BTCVC502: Geotechnical Engineering

Teaching Schemes
Lec: 03 Hrs / Week TU:01 Practical: 04 Hrs / Week
Class Test: 20 Marks

Examination Schemes
Theory: 80 Marks;

Sr. No.	Unit	content	Lect.Hrs
1	Unit-I	Introduction Definition of soil and soil engineering	8
		Application areas of soil mechanics,	
		Three Phase system	
		Numericals	
		Soil moisture, Soil minerals	
		Effective and neutral pressure	
		Numericals	
		Numericals	
2	Unit-II	Soil Consistency Index properties of soil:	10
		Different unit weights of soil, and their determination	
		unit weight of solids, unit weights of soil mass	
		Numericals method for determination of field density viz. sand replacement and core cutter,	
		Specific Gravity determination methods void ratio and porosity, degree of saturation,	
		Inter relation between weight volume state,	
		density indexes, Atterberg's limits and their significance, Numericals	
		Soil Classification: Soil classification based on particle size and consistency,	
		I.S. classification system Numericals	
3	Unit III	Flow of Water Through Soil: Permeability Head, gradient and potential,	10
		Darcy's law, Factors affecting permeability,	
		Field and Laboratory methods of determining permeability,	
		Seepage pressure, quick sand condition,	
		Derivation of Laplace equation, Numerical	
		Flow net: characteristics& application	
		construction of flow net	
		piping phenomenon, Permeability through stratified soil,	
		Discharge and seepage velocity	
		Numerical	
4	Unit IV	: Shear Strength Concept of shear,	10
		Coulomb's theory and failure envelope	
		Principle stress, stress analysis (Total stress approach and effective stress	
		representation of stresses on Mohr's circle for different types of soil such as cohesive and cohesionless,	
		saturated and partly saturated soil etc	
		Application of shear stress parameters in the field,	
		Different types of shear tests: Unconsolidated undrained, Consolidated undrained and	

		consolidated drained choice of the type of test, box shear test,	
		triaxial compression test with pore pressure and volume change measurement,	
		Unconfined compression test, vane shear test	
		Numerical	
		Numerical	
5	Unit V	Compressibility of Soils : CompactionTheory of compaction, factors influencing compaction,	10
		compacted density, Laboratory Standard and modified compaction test, Method and measurement of field compaction	
		Field compaction control Consolidation Compressibility: Definition, compressibility of laterally confined soil	
		compression of sand and clay, e-p and e-log p curve, compression index	
		Consolidation:Terzaghi's theory of one dimensional consolidation	
		consolidation test, determination of coefficient of consolidation,	
		degree of consolidation, relevance of one dimensional consolidation to field condition, time factor	
		Earth Pressure Theories: Earth pressure at rest, active and passive conditions, Elementary idea about Rankin's and	
		Coulomb's earth pressure. Graphical methods for active earth pressure.	48rs

Recommended Books

Text Books: Kasamalkar B. J., "Geotechnical Engineering", Pune Vidyarthi Griha Prakashan Pune

Murthy V.N.S., "Soil Mechanics• & Foundation Engineering", U.B.S. Publishers and Distributors N. Delhi

Punmia B.S., "Soil Mechanics• & Foundation Engineering", Laxmi Publications Arora K. R., "Soil Mechanics" Standard Publishers, N. Delhi

Gopal R Rao "Basic Soil Mechanics "•

Reference Books:

Alam Singh, "Text book of soil mechanics in theory and practice", Asian Pub. House, Mumbai

Taylor D.W."Fundamentals of Soil mechanics

Terzaghi and Peak "Soil mechanics" John Willey and Sons, New-York

Scott R. F., "Principal of soil mechanics"

Lambe T.W, "Soil Testing" by Willey Eastern Ltd., New Delhi

• Course Outcomes: On completion of the course, the students will be able to:

CO1: Understand different soil properties and behavior

CO2: Understand stresses in soil and permeability and seepage aspects.

CO3: Develop ability to take up soil design of various foundations

Subject teacher

H.O.D Civil

TEACHING PLAN - ACADEMIC YEAR 2022-2023

Name of the Institute : **P.E.S College of Engineering** Institute Code No. : 2134
Name of Subject: **Design of RC Structures** Subject Code: BTCVC 601
Name of the Faculty: Prof. J. R. Gaikwad Semester: VI
Branch : **Civil Engineering**

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
Module 1	**Introduction**	**4**	
1.1	Basic Aspects of Structural Design, Introduction to Design Philosophies	1	
1.2	Stress Strain behavior of Materials Working stress method Ultimate load method and Limit state method	1	
1.3	Comparison of Different Philosophies, Factor of Safety,	1	
1.4	Estimation of loads	1	
Module 2	**Working Stress Method**	**8+6**	
2.1	Stress block parameters, permissible stresses,	1	
2.2	Balanced, under reinforced and over reinforced section	1	
2.3	Analysis and design for flexure and shear	2	
2.4	Analysis and design of singly reinforced beams	2	
2.5	Analysis and design of doubly reinforced beams	2	
2.6	Design of axial and uniaxial eccentric loaded columns	3	
2.7	Isolated column footings,	2	
2.8	WSM design requirements as per Annexure B of IS 456:2000	1	
Module 3	**Limit State Method**	**10+4**	
3.1	Introduction to limit state approach, types and classification of limit states	1	
3.2	Characteristics strength and characteristics load	1	
3.3	Load factor, partial safety factor	1	
3.4	Strain variation diagram, stress variation diagram, serviceability criteria	2	
3.5	Design for shear: shear failure	3	
3.6	Types of shear reinforcement, minimum shear reinforcement, design of shear reinforcement	3	
3.7	Design for bond - types, factors affecting, resistance, check for development length, detailing of reinforcement	3	

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
Module 4	**Limit State of Collapse in Flexure**	**16+4**	
4.1	Analysis and Design: Singly Reinforced Beams sections	3	
4.2	Analysis and Design: Doubly Reinforced Beams sections.	3	
4.3	Analysis and Design: Flanged (L and T) sections.	3	
4.4	**Design of Slabs:** One-Way and Two-Way Slab	4	
4.5	Behavior of slabs, types, support conditions,	1	
4..6	Analysis and design with various conditions Staircases effective span and load distribution.	2	
4.7	Design of dog- legged staircase.	2	
4.8	Design of open well staircase.	2	
Module 5	**Limit State of Collapse in Compression Design of columns, and footings**	**10+5**	
5.1	Analysis and design of axially loaded short columns - Circular	2	
5.2	Analysis and design of axially loaded short columns - Rectangular	2	
5.3	Analysis and design of eccentrically loaded short columns - Circular	2	
5.4	Analysis and design of eccentrically loaded short columns - Rectangular	2	
5.5	Detailing of reinforcement, and construction of Interaction diagrams for uni-axial bending	2	
5.6	Application in design, concept of design charts Concept of bi-axial bending	1	
5.7	Concept of interaction surface	1	
5.8	Design of isolated column footing for axial load, and uni-axial bending	3	

SUBJECT TEACHER

HEAD OF DEPARTMENT

TEACHING PLAN - ACADEMIC YEAR 2022-2023

Name of the Institute : **P.E.S College of Engineering**
Name of Subject: Materials, Testing & Evaluation
Name of the Faculty: Prof. J. R. Gaikwad
Branch: **Civil Engineering**

Institute Code No. : 2134
Subject Code: BTCVPE506G
Semester: V

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
Module 1		**8**	
1.1	Basic Properties of Materials: importance of materials in civil engineering construction	1	
1.2	types of materials such as ceramics, concrete, composites, optical /electronics materials, glass, metals, nano-materials ,polymers and plastics, wood and other materials.	1	
1.3	some basic properties of materials such as temperature, energy, specific heat, thermal conductivity, coefficient of thermal expansion	1	
1.4	mechanical properties of metals ,stress, strain modulus of elasticity,	1	
1.5	stress-strain behavior, elastic and plastic deformations	1	
1.6	elastic properties of materials, tensile properties, ductility, resilience and toughness	1	
1.7	compressive, shear and torsional deformation, hardness	1	
1.8	Variability of material properties	1	
Module 2		**8**	
2.1	Civil Engineering Materials: introduction to cement and concrete	1	
2.2	Uses of cement, strength of cement and concrete ,sand, coarse aggregates,	1	
2.3	Mortar and grouts, masonry mortars, rendering, cementitious grouts	1	
2.4	RCC, clay bricks ,calcium silicate bricks, concrete blocks.,	1	
2.5	Steel , steel grades, mechanical properties of steel, different applications,	1	
2.6	Floor and roofing tiles, slates, timber, strength of timber, Engineered wood products	1	
2.7	Metals, glass for glazing, glass fibres, glass wool	1	
2.8	Bituminous materials, binder properties, binder mixtures, asphalt mixture	1	

Sr. No.	Sub Topic Covered	No of Lectures Required	Date of Lecture
Module 3		**6+2**	
3.1	Composite materials: rcc	1	
3.2	Composite materials: frc	1	
3.3	Steel/concrete composite bridge decks	1	
3.4	Fibre reinforced plastics structural insulated panels.	1	
3.5	Comparison of Different Materials, Introduction	1	
3.6	Comparison of strengths of various materials	1	
3.7	Comparison for environmental impact	1	
3.8	Health and safety.	1	
Module 4		**6**	
4.1	New Techniques in Constructions—Introduction,	1	
4.2	3D printing, photo catalytic admixture	1	
4.3	Self-healing concrete	1	
4.4	Zero cement concrete	1	
4.5	Hemp lime, wood-glass epoxy composites, bamboo.	2	
Module 5		**8+1**	
5.1	Material testing ,machines and equipment requirements	1	
5.2	Necessity of material testing, various testing methods, destructive tests	1	
5.3	Classification of destructive tests---static, impact and cyclic testing,	1	
5.4	Non-destructive testing–its classification	1	
5.5	Visual inspection, penetration test, magnetic detection,	1	
5.6	Ultrasonic test, radiography test and spark test	1	
5.7	Types of testing machines UTM and CTM	1	
5.8	Force and displacement controlled machines, loading frames	2	
5.9	Hardness testing machines, fracture tests	1	

SUBJECT TEACHER

HEAD OF DEPARTMENT

2022-23

P.E.S. College of engineering

Nagsenvan, Aurangabad

Department of Civil Engineering

SUBJECT: - BTCVOE606 B Basic Human Rights
SUBJECT TEACHER: - **Prof. S.R. Phulpagar**

Class - Third
Year B.Tech

Lesson Plan

Lect. No.	Topic	Portion Covered	Date
	Module 1: Basic Concepts		
1	Individual, group, civil society, state, equality, justice.		
2	Human Values, Human rights & Human Duties: Origin,		
3	Contribution of American bill of rights,		
4	French revolution.		
5	Declaration of independence, Rights of citizen,		
6	Rights of working & exploited people		
	Module 2: Fundamental Rights and Economic Program		
7	Society, religion, culture, and their inter-relationship.		
8	Impact of social structure on human behavior		
9	Structure and Social Problems:		
10	Analysis of eccentrically loaded short columns - Circular		
11	Social and communal conflicts and social harmony		
12	Rural poverty, unemployment, bonded labour		
	Module 3: Workers and Human Rights		
15-16	Migrant workers and human rights violations		
17-18	human rights of mentally and physically challenged		

19	State, Individual liberty		
20	Freedom and democracy.		
21	NGOs and Human Rights in India Land,		
22	Water, Forest issues		
	Module 4: Human Rights in Indian Constitution and Law		
21	i) The Constitution of India: Preamble		
22	ii) Fundamental rights;		
23	iii) Directive principles of state policy		
24	iv) Fundamental duties;		
25	v)Some other provisions		
	Module 5: UDHR and Indian Constitution		
26-28	Universal declaration of human rights and provisions of India;		
29	Constitution and law;		
30-34	National human rights commission and state human rights commission.		

Subject Teacher **Head** **Principal**

TY - 2022-23
FE Sem II

P.E.S.College of Engineering

Department Of Civil Engineering

Teaching plan

Academic Year (TY): 2022-23

BTCV C602 :Foundati on Engineer i ng Teaching Schemes

Examination Schemes

Lec: 03 Hrs / Week TU:01 Practical: 04 Hrs / Week Theory: 80 Marks;

Class Test: 20 Marks

Sr. No.	Unit	content	Lect.Hrs
1	Unit-I	Introduction, General requirements to be satisfied for satisfactory performance of foundations	06
		Soil exploration: Necessity,Planning	
		Exploration Methods,	
		Soil Sampling Disturbed and undisturbed	
		Rock Drilling and Sampling, Core Barrels, Core	
		Boxes, Core Recovery	
		Field Tests for Bearing Capacity evaluation	
		Test Procedure & Limitations	
2	Unit-II	Bearing Capacity Analysis - Failure Modes,	07
		Terzaghi' sAnalysis,Specialization of Terzaghi' s Equations,	
		Skempton Values for Nc, Numerical	
		Meyerhof' s Analysis,I.S. Code Method of Bearing Capacity Evaluation	
		Effect of Water Table, Eccentricity of load,	
		Safe Bearing Capacity and Allowable Bearing Pressure	
		Settlement Analysis: Immediate Settlement - Consolidation	06
		Settlement, Differential Settlement	
		Tolerable Settlement, Angular distortion	
3	Unit III	Condationsfor Difficult Soils - Guidelines for Weak and Compressible Soils, Expansive soil, Parameters of Expansive Soils,	05
		Collapsible Soils and Corrosive Soils,	
		Causes of Moisture changes in Soils, Effects of Swelling on Buildings	
		Preventative Measures for Expansive Soils, Modification of Expansive Soils	
		Design of Foundation on Swelling Soils, Ground	
		Improvement Methods: for general considerations, for Cohesive Soils ,for Cohesionless Soils,	
4	Unit IV	Shallow Foundations: Assumptions & Limitations of Rigid Design Analysis,	06
		Safe Bearing Pressure	
		Settlement of Footings,	
		Design of Isolated	
		Combined, Strap Footing (Rigid analysis)	
		Raft Foundation (Elastic Analysis	
		I. S. Code of Practice forDesign of Raft Foundation	
5	Unit V	Deep foundations: Pile Foundation: Classification	07
		Load Carrying Capacity of Piles, Single Pile Capacity,Pile Driving	
		Dynamic Formulae	

		Negative skin Friction, Under Reamed Piles	
		GroupAction of Pil eCaissons Foundations: Box, Pneumatic, Open Caissons, Forces, Grip Length, Well Sinking, Practical Difficulties And Remedial Measures	
		Sheet Piles: Classification, Design of Cantilever Sheet Pile in Cohesionless and Cohesive soils. Design of Anchored Sheet	06
		Pile by Free Earth Support Method, Cellular Cofferdams: Types, Cell Fill Stability Considerations	
6	**Unit VI**	Slope Stability: Different Definitions of Factors of Safety,	06
		Types of Slope Failures,	
		Stability of an Infinite Slope of Cohesionless Soils,	
		Stability Analysis of an Infinite Slope of Cohesive Soils,	
		Stability of Finite Slopes- Slip Circle Method	
		Semi Graphical andGraphical Methods	
		Friction Circle Method, Stability Number: Concept and its use	

Recommended Books

Text Books: Kasamalkar B. J., "Geotechnical Engineering", Pune Vidyarthi Griha Prakashan Pune

Murthy V.N.S., "Soil Mechanics• & Foundation Engineering", U.B.S. Publishers and Distributors N. Delhi

Punmia B.S., "Soil Mechanics• & Foundation Engineering", Laxmi Publications Arora K. R., "Soil Mechanics" Standard Publishers, N. Delhi

Gopal R Rao "Basic Soil Mechanics "•

Reference Books:

Alam Singh, "Text book of soil mechanics in theory and practice", Asian Pub. House, Mumbai

Taylor D.W."Fundamentals of Soil mechanics

Terzaghi and Peak "Soil mechanics" John Willey and Sons, New-York

Scott R. F., "Principal of soil mechanics"

Lambe T.W, "Soil Testing" by Willey Eastern Ltd., New Delhi

• Course Outcomes: On completion of the course, the students will be able to:

To predict soil behavior under the application of loads and come up with appropriate solutions to foundation design queries.

Analyze the stability of slope by theoretical and graphical methods.

Analyze the results of in-situ tests and transform measurements and associated uncertainties into relevant design parameters.

Synthesize the concepts of allowable stress design, appropriate factors of safety, margin of safety, and reliability.

Subject teacher

H.O.D Civil

TRE- BTCVC-603

22-23
VII

Teaching Plan

Sr.No.	Topic taught	Date	syllabus completion
Module 1	Importance of various modes of transportation		
	Highway Engineering,		
	Road Classification		
	Developments in Road Construction,		
	Highway Planning		
	Alignment and Surveys		
Module 2	Geometric Design- Cross section elements		
	Sight distances		
	Horizontal alignment, Vertical alignment,		
	Intersections, Construction of Pavements		
	Construction and Maintenance of Drainage,		
	Road Arboriculture		
Module 3	Highway Materials: Soil – relevant properties, Various tests,		
	Soil – relevant properties, Various tests,		
	Aggregates – strength, hardness, toughness, soundness, durability, shape, specific gravity, water absorption		
	Aggregates – strength, hardness, toughness, soundness, durability, shape, specific gravity, water absorption		
	Bituminous materials – Bitumen, Tar, and Asphalt – various properties		
	Bitumen, Tar, and Asphalt – various properties		
	Design of Bituminous paving mixes-Marshall stability test		
Module 4	Traffic Characteristics, Speed, Parking Space Road Markings, Signs		
	Journey Time and Delays, Vehicle Volume Counts,		
	Origin and Destination Studies, Analysis and Interpretation of Survey Data		
	Traffic Operations, Design of Signals and Rotary intersections		
	Design,Highway Lighting, Planning and Administration,		
	Road Accidents and Safety:Classification, Causes		
	Mitigation and Control Measures, Aspects of Safety in Usage of Roads,		
	Type and Design of anti-crash barriers, Introduction to Intelligent Transport Systems (ITS).		
Module 5	**Pavement Design** Basic Principles,		
	Methods for different Types of Pavements,		
	Design of flexible pavement using IRC: 37- 2012,		
	Design of rigid pavement using IRC: 58-2011		
	Other modes of Transport Introduction to Railways		
	Pipeline Transportation, Airways,		
	Waterways, Classification, Requirements		
	Comparative Studies		

TY- 2022-23
Sem II

P.E.S.College of Engineering

Department Of Civil Engineering

Teaching plan

Academic Year (TY): 2022-23

BTCVPE 604E Ground Improvement Techniques

Teaching Schemes
Lec: 03 Hrs / Week
Class Test: 20 Marks

Examination Schemes
Theory: 80 Marks;

Sr. No.	Unit	content	Lect.Hrs
1	Unit-I	Dewatering: Introduction – Scope and necessity of ground improvement in	8
		Geotechnical engineering basic concepts- Applications	
		Drainage – Ground Water lowering by well points	
		Drainage – Ground Water lowering by well points	
		deep wells	
		vacuum and electroosmotic methods	
		Stabilization by thermal and freezing technique s	
2	Unit-II	Compaction and Sand Drains:	06
		Insitu compaction of granular and cohesive soils,	
		Shallow and Deep compaction methods –	
		Sand piles – Concept, design, factors influencing compaction	
		Blasting and dynamic consolidation	
		Preloading with sand drains, fabric drains, wick drains etc	
		Theories of sand drain	
		design and relative merits of various methods – Case studies	
3	Unit III	Stone Column, Lime Piles and Soil Nailing:	06
		Stone column, lime piles – Functions –	
		Methods of installation– design,	
		estimation of load carrying capacity and settlement	
		Root piles and soil nailing –	
		methods of installation – Design and Applications	
		Soil liquefaction mitigation methods	
		case studies.	
4	Unit IV	Earth Reinforcement: Earth reinforcement – Principles and basic mechanism of reinforced earth,	06
		simple design:	
		Synthetic and natural fiber-based Geotextiles and their applications.	
		Filtration, drainage	
		separation, erosion control	10
		case studies	
5	Unit V	Grouting: Grouting – Types of grout Suspension and solution grouts	06

		Basic requirements of grout. Grouting equipment – injection methods	
		Electro – Chemical stabilization	
		jet grouting – grout monitoring	
		Stabilization with cement, lime	
		Stabilization of expansive clays – case studies.	

Recommended Books

Text Books :

Pappala, A.J., Huang,J., Han, J., and Hoyos, L.R., "Ground Improvement and Geosynthetics; Geotechnical special publication

- No.207, Geo Institute, ASCE, 2010 Cox, B.R., and Grifiths S.C., "Practical Recommendation for Evaluation and mitigation of Soil Liquefaction" in Arkansa s,
- (Project Report), 2010. Day, R.W., "Foundation Engineering Handbook, McGraw – Hill Companies, Inc. 2006
- Rowe, R.K., "Geotechnical and Geoenvironmental Engineering Handbook, Kluwer Academic Publishers, 2001.
- Das, B.M., "Principles of Foundation Engineering, Fourth Edition, PWS Publishing, 1999.
- References Books Moseley, M.P., "Ground Treatment, Blackie Academic and Professionals, 1998.
- Koerner, R.M., "Designing with Geosynthetics, Third Edition, Prentice Hall 1997.
- Hehn, R.W., "Practical Guide to Grouting of Underground Structures, ASCE, 1996.
- Jewell, R.A., "Soil Reinforcement with Geotextiles, CIRIA, London, 1996.
- Koerner, R.M. and Welsh, J.P., "Construction and Geotechnical Engineering using Synthetic Fabrics, John Wiley, 1990.

- Course Outcomes: On completion of the course, the students will be able to:

CO1: To identify and evaluate the deficiencies if any in the deposits of the given project area.

CO2: Capable of providing alternative methods to improve its quality so that the structures built on it will be stable and serve the intended purpose.

Subject teacher

H.O.D Civil

P.E.S. College of Engineering

Nagsenvan, Aurangabad.

Department of Civil Engineering

TIME TABLE FOR THE YEAR 2022- 2023

CLASS: SY (CIVIL) **TERM : II** **WITH EFFECT FROM : 20/03/2023** **CLASS ROOM NO :A-1**

PERIOD	I	II		III	IV		V	VI
TIMING	10.30 TO 11.30 a.m.	11.30 TO 12.30 a.m.		1.15 TO 2.15 p.m.	2.15 TO 3.15 p.m.		3.30 TO 4.30 p.m	4.30 TO 5.30 p.m
MONDAY	WRE SRP	EG CRG	S S E C R E S S	HYD-II SSF	SM-1 RMS	S S E C R E S S	BPD(S1+S2)DNK EE(S3+S4)NKKK	
TUESDAY	EG CRG	BPD DNK		EE NKK	WRE SRP		HYD(S1+S2) SSF BPD(S3+S4)DNK	
WEDNESDAY	SM-I RMS	SM-1 RMS		EE NKK	HYD-II SSF		HYD(S3+S4) SSF EE(S1+S2)NKK	
THURSDAY	EG CRG	EE NKK		BPD DNK	HYD-II SSF		WRE SRP	
FRIDAY	HYD-II SSF	EG(SL) CRG		WRE SRP	SM-I RMS		BPD DNK	EE NKK
SATURDAY	EE(SL) **NKK**	HYD-II(SL) SSF		BPD DNK	BPD(SL) DNK		**WRE** **SRP**	SM-I(SL) RMS

1. SM-I: DR. R M SAWANT
2. BPD. :DR. D. N. KAKDE
3. HYD-II: PROF.SK S FATIMA
4. EG: PROF. C.R. GHUSHINGE
5. EE:PROF.N. K. KAD
6. WRE: PROF. S. R. PULPAGAR

Prof. S. B. DHULE
Time Table Co ordinator

HOD
Civil Engineering Department

PRINCIPAL
College of Engineering
Aurangabad

P.E.S. College of Engineering

Nagsenvan, Aurangabad.

Department of Civil Engineering

TIME TABLE FOR THE YEAR 2022 - 2023

CLASS: T.Y (CIVIL) **TERM : II** **WITH EFFECT FROM : 20/02/2023** **CLASS ROOM NO : A-II**

PERIOD	I	II		III	IV		V	VI
TIMING	09.30 TO 11.30 a.m.	11.30 TO 12.30 a.m.		1.15 TO 2.15 p.m.	2.15 TO 3.15 p.m.		3.30 TO 4.30 p.m	4.30 TO 5.30 p.m
MONDAY	SSD	ELE-III JRG/X1		FE SBD	TE PDA		SDD(T1+T2)JRG TE(T3+T4)PDA	
TUESDAY	SSD	ELE--II NKK/CRG SSF/SBD		FE SBD	DOS-I JRG		SDD(T3+T4JRG TE(T1+T2)PDA	
WEDNESDAY	SSD	TE PDA		DOS-I JRG	FE SBD		MINI PROJECT	
THURSDAY	SSD	FE(SL) SBD		ELE--II NKK/CRG/ SSF/SBD	TE PDA		DOS-I JRG	IC X2
FRIDAY	SSD	TE PDA		DOS-I(SL) JRG	ELE-III JRG/X1		ELE--II NKK/CRG/ SSF/SBD	IC X2
SATURDAY	SSD	TE(SL) PDA		ELE-III(SL) JRG/X1	IC X2			

RECESS RECESS

Prof: 1.DOS: Prof. J. R. GAIKWAD
2. TE: PDA : Prof. P. D. ALTE
3. FE-I: SBD: Prof.S. B. Dhule
4.ELE- II :Prof N. K. KAD, Prof. GHUSHINGE, Prof. SK. FATIMA. Prof. DHULE
5.ELE-III : Prof J. R. GAIKWAD/X1
6.IC: X2

Prof. S. B. DHULE
Time Table Co ordinator

HOD
Civil Engineering Department

PRINCIPAL
College of Engineering

P.E.S. College of Engineering

Nagsenvan, Aurangabad.

Department of Civil Engineering

TIME TABLE FOR THE YEAR 2022 - 2023

CLASS: B.Tech. (CIVIL) **TERM : II** **WITH EFFECT FROM : 20/2/2023** **CLASS ROOM NO : A-III**

PERIOD	I	II		III	IV		V	VI
TIMING	10.30 TO	11.30 TO		1.15 TO 2.15	2.15 TO 3.15		3.30 TO 4.30	4.30 TO 5.30 p.m
MONDAY	MRCS DNK	EEALOB JRG		PROJECT			PROJECT	
TUESDAY				INTERNSHIP			INTERNSHIP	
WEDNESDAY	MRCS DNK	EEALOB JRG						
THURSDAY	EEALOB JRG	MRCS DNK						
FRIDAY	PROJECT			INTERNSHIP				
SATURDAY	INTERNSHIP (SRP)			PROJECT				

RECESS RECESS RECESS

1. MRCS: DR.D. N. KAKDE
2. EEALOB: Prof. J. R.GAIKWAD

Prof. S. B. DHULE
Time Table Co ordinator

HOD
Civil Engineering Department

PRINCIPAL
College of Engineering
Aurangabad

डॉ. बाबासाहेब आंबेडकर तंत्रशास्त्र विद्यापीठ, लोणेरे
Dr. Babasaheb Ambedkar Technological University, Lonere
(Established under Act No XXIX of 2014 by government of Maharashtra)
विद्याविहार, लोणेरे-रायगड ४०२ १०३ (महाराष्ट्र) Vidyavihar, Lonere - Raigad 402 103 (Maharashtra)
Tel: (02140) 275142 Student Helpline: 02140-275212
Website: www.dbatu.ac.in, E-mail: registrar@dbatu.ac.in

Dr. Bhagwan F. Jogi
Registrar

डॉ. भगवान फ. जोगी
कुलसचिव

Dated:12/ 08/2022

Academic Calendar 2022-23 (Odd Semester) (Engineering)

Sl. No.	Activity	Commencement Date	Concluding Date	Total Days	Engineering
1	Admissions: B.Tech. Second, Third and Final Year; M.Tech. Second year.	September 01, 2022	September 10, 2022	10	UG and PG
2	Commencement of Classes of Second, Third and Final Year	September 01, 2022	December 19, 2022	110	UG and PG
3	Dissertation Examination of the Academic Year 2021-2022	September 01, 2022	September 10, 2022	10	PG
4	Mid-Semester Examinations	October 12, 2022	October 21, 2022	09	UG and PG
5	Submission of Dissertation Proposal to University	October 18, 2022	October 21, 2022	04	PG
6	Display of Mid-Semester Examination Marks	October 28, 2022	October 31, 2022	04	UG and PG
7	Scrutiny of Master's Level Dissertation Work Proposal	November 01, 2022	November 03, 2022	03	PG
8	Exam Form Filling for Regular & Supplementary Examinations	November 01, 2022	November 08, 2022	08	UG and PG
9	Exam Form Filling for Regular & Supplementary Examinations with Late Fee	November 09, 2022	November 15, 2022	07	UG and PG
10	University Tech Fest 2021	November 17, 2022	November 19, 2022	03	UG and PG
11	End of Classes	--	December 19, 2022	110	UG and PG
12	Practical/Project/Seminar Examinations	December 20, 2022	December 23, 2022	04	UG and PG
13	Uploading Internal, Mid Semester, Practical, Project and Seminar marks on University portal	December 22, 2022	December 24, 2022	03	UG and PG
14	End Semester Regular & Supplementary Examination	December 26, 2022	January 21, 2023	26	UG and PG
15	Internship/Industrial Training#				
16	Vacation	January 1, 2023	January 20, 2023	20	Faculty and Staff

डॉ. बाबासाहेब आंबेडकर तंत्रशास्त्र विद्यापीठ, लोणेरे
Dr. Babasaheb Ambedkar Technological University, Lonere
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विद्याविहार, लोणेरे-रायगड ४०२ १०३ (महाराष्ट्र) Vidyavihar, Lonere - Raigad 402 103 (Maharashtra)
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Dr. Bhagwan F. Jogi
Registrar

डॉ. भगवान फ. जोगी
कुलसचिव

Date: 12/08/2022

17	Commencement of Classes	February 1, 2023	May 31, 2022	120	UG and PG
18	Remedial Examination	February 21, 2023	March 3,2023	10	UG and PG

#Industrial training will be carried out after completion of odd semester or in the staggered manner in the period of entire odd semester (Preferably on Saturdays, Sundays and Holidays) and partially in the vacation after odd semester. Another option could be permit the training in online mode which is not less than 120 hours.

Table 2 : List of Festivals / Holidays

Sl. No.	Festivals / Holidays	Date
1	Dasara	Wednesday, 05 October, 2022
2	Diwali Laxmi Pujan	Monday, 24 October, 2022
3	Diwali Balipratipada	Wednesday, 26 October, 2022
4	Guru Nanak Jayanti	Tuesday, 08 November, 2022

Table 3 : Following Holidays fall on Sunday

Sl. No.	Festivals / Holidays	Date
1	Mahatma Gandhi Jayanti	02 October, 2022
2	Id-E-Milad	09 October, 2022
3	Christmas	25 December, 2022

12.08.2022

(Dr. B. F. Jogi)
Registrar

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

Academic Calendar 2022-2023 DBATU (S.Y., T.Y, Final Year, Semester-I)

1st - 10th Sept. 2022	Admission (B. Tech. Second, Third, Final, M. Tech-II)
5th Sept. 2022	Commencement of classes of Second, Third, Final Year.
1st - 10th Sept. 2022	Dissertation Examination of the Academic year 2021-22.
26th Sept.- 1st Oct. 2022	**Commencement of CA-I Examination.**
2nd Oct. 2022	Mahatma Gandhi Jayanti.
3rd - 7th Oct. 2022	**Display of CA-I Examination Marks.**
5th Oct. 2022	Dasara
6th Oct. 2022	Monthly Academic Review.
9th Oct. 2022	Id-E-Milad.
12th – 21st Oct. 2022	**Mid –Semester Examination.**
18th - 21st Oct.2022	Submission of Dissertation Proposal to University.
24th Oct. 2022	Diwali Laxmi Pujan.
26th Oct. 2022	Diwali Balipratipada.
28th - 31st Oct. 2022	**Display of Mid Semester Examination Marks.**
1st –8th Nov. 2022	Exam Form filling for regular and supplementary Exam.
5th Nov. 2022	Monthly Academic Review.
8th Nov. 2022	Guru Nanak Jayanti.
9th - 15th Nov. 2022	Exam Form filling for regular and supplementary Exam with late fees.
17th - 19th Nov. 2022	University Tech Fest.
21st - 26th Nov. 2022	**Commencement of CA-II Examination.**
28th - 30th Nov. 2022	**Display of CA-II Examination Marks.**
5th Dec. 2022	Monthly Academic Review.
19th Dec. 2022	End of Classes.
20th - 23rd Dec. 2022	Practical/Project/Seminar Examinations.
22nd - 24th Dec.2022	**Uploading internal, Mid Semester, Practical, Project & Seminar Marks to University portal.**
25th Dec. 2022	Christmas.
1st - 20th Jan. 2023	**Vacation.**
26th Dec. 2022 - 21st Jan. 2023	End Semester &Supplementary Examination.
22nd - 31st Jan. 2023	Internship/Industrial Training.
21st Feb. - 3rd March 2023	Remedial Examinations.

Principal

1-7-2 departmental

P.E.S. College of Engineering, Nagsenvan
Department of Mechnical & Automation Engineering
Academic Calender for Department 2022-2023 SEM -I

Date	Activity
01-Sep-22	Admission Process Starts B.tech Second , Third & Final Year
05-Sep-22	Commencemnt of Classes
10-Sep-22	Admission Process End
02-Oct-22	Mahatma Gandhi Jayanti
05-Oct-22	Monthly Acadmic Review
09-Oct-22	Id -E-Milad
10-Oct-22	Commencemnt of Acadmic Examination CA-1
18-Oct-22	Classes and Departmental Activity
24-Oct-22	Diwali Laxmi Pujan
26-Oct-22	Diwali Balipratipada
31-Oct-22	Diwali Vacation End & Classes Started
01-Nov-22	Exam Form Filling and Supplimentry Form Filling
05-Nov-22	Monthely Review of Department
08-Nov-22	End of Exam form Filling
09-Nov-22	Industry and collge Based Project Applications
11-Nov-22	Deparmental Meeting for Acadmic Review
21-Nov-22	internal (backlog) examination START for Semester III,IV,V
22-Nov-22	internal (backlog) examination END for Semester III,IV,V
25-Nov-22	Last date to Submit Project Application for final Year
26-Nov-22	Commecemnet of CA-II Exam
06-Dec-22	Seminar Report Submission Starts
12-Dec-22	academic Review meeting infront of of academic review committee members
13-Dec-22	Application Inviated for Major & Minor Degree From Ty B.tech
14-Dec-22	Review of Syallbus Complation
15-Dec-22	Acadmeci Meeting for Sya!lbus complition extra lectures & other Points
19-Dec-22	Notice for Term work Submission Schedule for SEM-I,
20-Dec-22	End of Classes
21-Dec-22	Starting of Term Work Submission
25-Dec-22	Christmas
27-Dec-22	End of Term Work Submission
05-Jan-23	Departmental Viva Examination Start
10-Jan-23	Practical Examination Ends

Head of Department

डॉ. बाबासाहेब आंबेडकर तंत्रशास्त्र विद्यापीठ, लोणेरे
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विद्याविहार, लोणेरे-रायगड-४०२ १०३ (महाराष्ट्र) Vidyavihar, Lonere - Raigad 402 103 (Maharashtra)
Tel : (02140) 275142 Student Helpline : 02140-275212
स्वातंत्र्याचा अमृत महोत्सव

Dr. Bhagwan F. Jogi
Registrar

डॉ. भगवान फ. जोगी
कुलसचिव

DBATU /REG/OFC/ 2023/1383

Dated: 24 / 03/ 2023

Academic Calendar Semester-II Revised (AY 2022-2023)

Sr. No.	Activity	Commencement Date	Concluding Date	Level
1	Commencement of Classes	1st April 2023	20th June 2023	UG
2	Mid Semester Examination	8th May 2023	12th May 2023	UG
3	End of Classes	-	20th June 2023	UG
4	End Semester Examination	21st June 2023	30th June 2023	UG
5	Practical Examination	1st July 2023	10th July 2023	UG
6	Result Declaration	-	30th July 2023	UG
7	Commencement of Classes for Next semester	1st August 2023		UG
Holidays	18 Feb – Mahashivratri 19 Feb – Chatrapati Shivaji Maharaj Jayanti 7 March – Dhulivandan 22 March – Gudi Padwa 30 March – Ram Navami 4 April – Mahavir Jayanti 7 April – Good Friday		14 April – Dr Babasaheb Ambedkar Jayanti 22 April – Ramzan Eid 1 May – Maharashtra Din 5 May – Buddha Pournima 29 June – Bakari Eid	

1) All Sundays to be made working except public holidays.
2) Institute may allot additional lectures than prescribed to cover the syllabus.

Dr. B. F. Jogi
Registrar
REGISTRAR
Dr. Babasaheb Ambedkar Technological University
LONERE 402 103.
Tal. Mangaon, Dist. Raigad, (Maharashtra)

Copy submitted for information: Office of Hon'ble Vice-Chancellor
Copy to:
1. All heads of departments
2. Affiliated Institutes
3. Academic Section
4. Controller of Examinations

HEAD OF DEPARTMENT
Mechanical Engineering
PES College of Engineering
Aurangabad

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad. (M.S.) 431002

P.E.S. College of Engineering * Mechanical Department *

Academic Calendar 2022-2023 DBATU (F.Y.B. Tech., Semester-II)

1st April 2023	**Commencement of classes.**
4th April 2023	Mahavir Jayanti
7th April 2023	Good Friday
8th April 2023	Display weekly defaulters list and Communicate to the parents.
14th April 2023	**Dr. Babasaheb Ambedkar Jayanti**
15th April 2023	Display weekly defaulters list and Communicate to the parents.
22nd April 2023	Ramzan Eid
22nd April 2023	Display weekly defaulters list and Communicate to the parents.
24th - 29th April 2023	**Annual Social Gathering.**
29th April 2023	Display weekly defaulters list and Communicate to the parents.
1st May 2023	Maharashtra Din
1st May 2023	Monthly Academic Review.
5th May 2023	Buddha Pournima
6th May 2023	Display weekly defaulters list and Communicate to the parents.
8th – 12th May 2023	**Mid –Semester Examination.**
13th May 2023	Display weekly defaulters list and Communicate to the parents.
15th - 19th May 2022	**Display of Mid Semester Examination Marks.**
20th May 2023	Display weekly defaulters list and Communicate to the parents.
22nd - 27th May 2023	**Commencement of CA-I Examination.**
27th May 2023	Display weekly defaulters list and Communicate to the parents.
29th -31st May 2023	**Display of CA-I Examination Marks.**
1st June 2023	Monthly Academic Review.
3rd June 2023	Display weekly defaulters list and Communicate to the parents.
5th - 10th June 2023	**Commencement of CA-II Examination.**
10th June 2023	Display weekly defaulters list and Communicate to the parents.
12th - 17th June 2023	**Display of CA-II Examination Marks.**
17th June 2023	Display Final defaulters list and Communicate to the parents.
20th June 2023	**End of Classes.**
29th June 2023	Bakari Eid
21st – 30th June 2023	**End Semester Examination.**
1st - 10th July 2023	**Practical/Project/Seminar Examinations.**
1st August 2023	**Commencement of classes for next semester.**

Note: i) All Saturday and Sunday are working.
ii) Allot the additional theory and practical's than the prescribed structure to cover the syllabus.

Dean Academics

6/4/23
Principal

HEAD OF DEPARTMENT
Mechanical Engineering
PES College of Engineering
Aurangabad

P.E.S. College of Engineering, Aurangabad
Nagsenvan, Besides Panchakki,
Aurangabad (M.S.) – 431002

Department of Mechanical Engineering

Academic Calendar 2022-2023 DBATU (Semester II)

1/04/2023	**Commencement of Classes**
4/4/2023	Mahavir Jayanti
7/4/2023	Good Friday
8/4/2023	Display of weekly defaulter list and communicate to the parents
14/4/2023	**Dr. Babasaheb Ambedkar Jayanti**
15/4/2023	Display of weekly defaulter list and communicate to the parents
22/4/2023	Ramzan Eid
22/4/2023	Display of weekly defaulter list and communicate to the parents
24-29 April 2023	**Annual Social Gathering**
29/4/2023	Display of weekly defaulter list and communicate to the parents
1/5/2023	Maharashtra Din
1/5/2023	Monthly Academic Review
5/5/2023	Buddha Pournima
6/5/2023	Display of weekly defaulter list and communicate to the parents
8 – 12 May 2023	**Mid – Semester Examination**
13/5/2023	Display of weekly defaulter list and communicate to the parents
15 – 19 May 2023	**Display of Mid – Semester Examination Marks**
20/5/2023	Display of weekly defaulter list and communicate to the parents
22 – 27 May 2023	**Commencement of CA I Examination**
27/5/2023	Display of weekly defaulter list and communicate to the parents
29 – 31 May 2023	Display of **CA I Examination Marks**
1/6/2023	Monthly Academic Review
3/6/2023	Display of weekly defaulter list and communicate to the parents
5 -10 June 2023	**Commencement of CA II Examination**
10/6/2023	Display of weekly defaulter list and communicate to the parents
12 – 17 June 2023	**Display of CA II Examination Marks**
17/6/2023	Display of Final defaulter list and communicate to the parents
20/6/2023	**End of Classes**
29/6/2023	Bakari Eid
21 – 30 June 2023	**End Semester Examination**
1- 10 July 2023	**Practical/Project/Seminar Examinations**
1/8/2023	Commencement of classes of next semester

Note: (i) All Saturday and Sunday are working.

(ii)Allot additional theory and practical's than the prescribed structure to cover the syllabus.

Head of Department

HEAD OF DEPARTMENT
Mechanical Engineering
PES College of Engineering
Aurangabad

Subject: CAD/CAM

Code :

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

Prof. N. D. Dudhmal

AY - 2022-2023

SEM - I

SR.NO.	TOPIC	% SYLLYBUS
1	Unit-I CAD:- Hardware requirement for CAD, I/P, O/P devices,	10%
2	graphics softwares, groundrules, 2D curve, line, circle & algorithms	
3	2D - 3D transformations, Scaling, translation, rotation etc	
4	Unit-II Bezier & B spline curve & Equations & applications	20%
5	window & view port clipping algorithms, 3D geometries,	
6	CSG, Brep, wireframe, surface & solid modelling &	
7	their advantages & limitations & applications.	
8	Unit-III] CAM	30%
9	NC elements, NC systems, NC based manufacturing.	
10	Point to point, straight line, countouring, Manual &	
11	computer assisted part programming, NC & APT programming	
12	Adaptive control, Distributed Numerical control	
13	Programs NC, CNC	
14	Programs NC, CNC	
15	Programs NC CNC	
16	Programs NC CNC	
17	Unit IV] Finite Element Method: Introduction	10%
18	Types of elements, degrees of freedom, field	
19	Variables, shap function, conditions, Meshing, Nodal displacement	
20	Plain stress - plain strain problems, 1D, 2D, & 3D	
21	Problems, Static dynamics thermal analysis,	
22	preprocessor, solver postprocessor.	
23	Problems 2D, 3D Plain stress - Strain	
24	Problems 2D, 3D Plain stress - Strain	
25	Problems 2D, 3D plain stress - Strain	
26	Problems 2D, 3D plain stress - Strain	
27	Unit V] Flexible Manufacturing Systems: Introduction	40%
28	Components of FMS, Group technology, part classification	
29	composite parts, Types of FMS layout, advantages	
30	of FMS, Applications of FMS	
31	Unit VI] Computer Aided Process planning:-	
32	Introduction, Retrieval & Generative CAPP systems	
33	generation of machining data.	
34	Computer Integrated manufacturing: Introduction	
35	Types of data, types of Interfaces, computer	
36	network, structure, computerized production managing	
37	systems, Inventory management: MRP, operation	
38	scheduling, process monitoring, computer aided	
39	quality control, Testing / Inspection methods.	
40	Program Practice	
41	Program practice	
42	Transformation problems	
43	Trasformation Problems	
44	FEM Problems	
45	FEM Problems	

Subject: IEM.
B.Tech (Final)

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

Prof. P.L. Parab
SEM-I.
A.Y - 2022-2023

SR.NO.	TOPIC	% SYLLYBUS
1	INTRODUCTION TO METROLOGY	0
2	UNIT I :- MEASUREMENT STANDARD & Comparator.	0
3	STANDARD and Traceability of Std. ERROR	2.5
4	Slip gauges and gauge blocks, Linear Measurement	5
5	Angular Measurement (Sine bar, Sine Centre, Auto collimator)	10
6	Angular Measurent (Angle Decoder & Dividing head)	13.5
7	Calibration, Comparator - Mechanical, Pneumatic, optical)	16
8	Comparator - Electronic (Inductance) LVDT	18
9	LVDT & (Electrical comparator)	20.
UNIT 4 10	Quality: Quality Statements & Cost of quality	19
11	Value of quality and quality of design.	4
12	Value of quality and quality of Design	23.5
13	Quality of conformance & Quality of Performance	25.5
14	Seven quality tools: Check sheet, Brainstorm	28
15	Flow chart and Pareto analysis	31
16	Cause & effect diagram (Case Study I)	32
17	Case study II for cause & Effect diagram	34
18	Satter diagram & quality circle intro.	35
19	Quality circles - Comparisions and application of quality tool	37.5
UNIT 2 20	Interferometer: Principle, NPL Interferometry.	40
21	Flatness measuring of slip gauges Parallism	43
22	Laser Interferometer surface finish Measurent - Sur. Texture	45.5
23	Measuring Surface Finish by stylus probe	48
24	Tomlinson and Talley - Short analysis of Surface Traps	51
25	Tomlinson & Talley - Short analysis of Surface Traps.	52
26	Methods design of gauges, Types of Gauges, Limits, Fits	55
27	Tolerances, Terminology for Limits & Fits. Indian Standard	57.5
UNIT 3 28	Metrology of Screw Thread - Gear metrology - Gear errors	60.5
29	Gear measurent, Gear tooth vernier Profile Projector Tool,	63
30	Tool makers microscope Advancent, CMM.	65
31	Construction & working of CMM & Optical scanning machine	67.5
UNIT 5 32	TQM :- Objectives of TQM. Need and application	69
33	Quality Function Deployment - its concept & needs.	70.5
34	5's and Kaizan - Concept, need and application	73
35	Kanban - Types and purpose, JIT (Production & Purchase)	76
36	Poka-Yoke, TPM, FMECA (Failure mode, effect & critical analysis)	79
37	FTA & Zero defects	82.5
UNIT 6 38	Statical Quality Control :- Statistical Concept, Frequency Dist	85
39	Concept of variance, Control Chart for Variable &	88
40	attributes and Process capability. Acceptance Sampling	90
41	OC curve & its Characteristics. Sampling methods	92.5.
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PORTION COVERED

L.No.	Date	TOPIC	ATT.
1	5/9	Introduction of Metrology & quality	0
UI 2	6/9	Introduction: Mesurt Standard, Line & End	2.5
3	7/9	Standard & Traceability of Standard	5
4	12/9	Types and Sources of Error.	7
5	13/9	Slipgauge & gauge Block. Linear Mesurt	10
6	14/9	Angular measent (Sine bar, Sine centre, Autocolli)	12.5
7	19/9	——— d. ——— d ———	15
8	20/9	Calibration, Comparator – Mechanical	17.5
9	21/9	Pneumatic & Mechanical. Optical	19
10	26/9	Comparator Electronic	19
11	28/9	Comparator Electrical	20
UIV 12	30/09	Quality & quality tools; Quality Statents, Cost	22
13	4/10	Value of quality & Quality of Design	23
14	7/10	Quality of confirmace & Peformance	24
15	10/10	Seven quality Tools. Check sheet.	27
16	11/10	Flow chart & Pareto Analysis	29
17	14/10	Cause & effect daigram (Case study I)	31
18	15/10	Case study II for cause & effect.	33
19	17/10	Scatter daigram & Brain Storming	36
20	18/10	Quality circle, Comparision & applicatn	38
UII 21	26/10	Interferometer: Principle. NPL	42
22	21/10	Flatness measurng of slip gauges & Perallism	45.5
23	01/11	Laser Interferometer Surface finish meant	47
24	04/11	Stylus probe. Surface Roughness tester	52
25	07/11	Tomlinson & Taly surf Analysis.	53
26	08/11	Gauge design. Types of gauges	55
27	10/11	Limits & fits.	57
UV 28	11/11	TQM: Objectives of TQM. Need	58

TEACHER H.O.D. PRINCIPAL

ermodynamic
B.Tech III rd year
Sem -I

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

Prof. Gawali A.
A.Y. 2022-2023

SR.NO.	TOPIC	% SYLLYBUS
1	Fuel & combution.	
2	Types of fuel, calorific value of fuel & its	2.5 %
3	determination, combution equation for hydrocarbon	2.5 %
4	fuel, determination of minimum air required	2.5 %
5	for combution and excess air supplied	2.5
6	conversion of volumetric Analysis to mass	2.5
7	Analysis & fuel gas Analysis	2.5
8	STEAM GENERATOR	2.5
9	classification of boiler, boiler details, requirement	2.5
10	of good boiler, merits and demerits of fire	2.5
11	tube and water tube boiler, Boiler mouting	2.5
12	Boiler Draught: classification of draught,	2.5
13	Natural Draught, efficiency of chimney,	2.5
14	draught losses, types of boiler draught	2.5
15	performance of boiler: Evaporation,	2.5
16	Equipment Evaporation, boiler efficiency	2.5
17	boiler trial and heat balance, Introduction	2.5
18	of IBR	2.5
19	VAPOR & GAS POWER CYCLE	2.5
20	Carnot cycle, ideal Rankine cycle, Reheat	2.5
21	& Regeneration, Stirling cycle, Jowe-	2.5
22	Brayton cycle, calculation of thermal efficiency	2.5
23	specific steam / fuel consumption, work	2.5
24	ratio for above cycle.	2.5
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26	STEAM NOZZLE	2.5
27	Types of Nozzle flow of steam through	2.5
28	nozzle & condition for maximum discharge,	2.5
29	expansion of steam considering friction,	2.5
30	Supersaturated flow through nozzle,	2.5
31		?
32	STEAM TURBINES	2.5
33	Advantages and classification of steam turbine	2.5
34	Compounding of steam turbine, velocity diagram	2.5
35	work one done and efficiency, losses in turbine	2.5
36	Elements of steam condensing plants, advantage	2.5
37	using condenser, efficiencies, cooling tower.	2.5
38	Types of cooling tower, efficiency diagram for	2.5
39	Cooling tower Numericals	2.5
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Sem - I
AT. B.Tech III rd Year

PORTION COVERED

L.No.	Date	TOPIC	ATT.
1	14/09/2022	Intro fuel & combution	
2	16/09/2022	Types and c.v. Explain	
3	16/9/2022	combution eqn for hydrocarbon	
4	19/9/2022	Excess Air fuel supply	
5	19/9/2022	mass and volumetric Analysis	
6	21/9/22	flue gas Analysis, numericals based	
7	29/9/22	on volume and mass Analysis	
8	30/9/22	Introduction to the steam generator	
9	3/10/22	classification of steam generator	
10	6/10/22	boilers details, Requirement of good	
11	7/10/22	boiler, merits and demerits of boiler	
12	14/10/22	Boiler draugh introduction, classi	
13	18/10/22	fication of draugh, Natural	
14	19/10/22	forced, induced draugh, Numericals	
15	20/10/22	on draught, Performance of boiler	
16	20/10/22	how boiler compared to eachotheres,	
17	31/10/22	Boiler efficiency, boiler heat and	
18	3/11/22	balance sheet and IBR Rules for boiler	
19	14/11/22	Introduction to the Vapor and Gas	
20	15/11/22	cycle, which are the vapor cycles	
21	16/11/22	and Gas cycles for power plants and	
22	18/11/22	how they works with p-v; t-s	
23	18/11/22	diagram, calculation of thermal efficiency	
24	21/11/22	and Numericals, work ratio for vapour cycle	
25	23/11/22	specific ~~steam~~ fuel and fuel consumption	
26	25/11/22	what is steam nozzle where they	
27	28/11/22	are used, live application with example	
28	29/11/22	Types of Nozzle flow of steam Nozzle	

TEACHER H.O.D. PRINCIPAL

PORTION COVERED

L.No.	Date	TOPIC	ATT.
29	29/11/22	condition of maximum discharge th	
30	30/11/22	through Nozzle, sonic, subsonic &	
31	8/12/22	supersonic flow, losses in nozzle.	
32	9/12/22	what are the steam turbine,	
33	10/12/22	advanteges and classification of steam	
34	12/12/22	turbine, compounding of steam turbine	
35	13/12/22	velocity diagram, worke done by turbine	
36	15/12/22	and turbine efficiency, condenser	
37	16/12/22	types and classification. working	
38	19/12/22	of various types of condenser like	
39	23/12/22	jet condenser & vaporative condenser.	
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TEACHER H.O.D. PRINCIPAL

A.Y. -2022-2023
Sem-I
TD (BTMEC303)

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	Fundamental Concept and defination	2.5 %
2	Thermodynamic system and its type, Microscop	2.5 %
3	ic VS Microscopic viewpoint, properties,	2.5
4	Processes and cycles. Point fuction, Path	2.5
5	fuction, Thermodynamic equilibrium,	2.5
6	Quasi static process, Work & heat transfer,	2.5
7	Work transfer, Heat transfer, Zeroth Law	2.5
8	of thermodynamics, Specific heat & latent heat.	2.5
9	FIRST LAW OF THERMODYNAMIC	2.5
10	First law of thermodynamics for closed System	2.5
11	undergoing a cycle and change of state,	2.5
12	Energy, different form of energy, Enthalpy	2.5
13	PMM-I control volume, Application of first	2.5
14	law process for steady flow, nozzle,	2.5
15	turbine, compressor pump, boiler.	2.5
16	SECOND LAW OF THERMODYNAMICS	2.5
17	Limitation of first law of thermodynamic	2.5
18	cycle & heat Engine, refrigerator & heat	2.5
19	Pump, Kelvin - Plank, clausius statemat,	2.5
20	and their equivalence, Reversibility &	2.5
21	irreversibity, Carnot cycle, Carnot	2.5
22	theorem, Absolute thermodynamic	2.5
23	temperature scale, T-S plot, clausius	2.5
24	inequility, Entropy disorder and direction	2.5
25	IDEAL GAS	2.5
26	· Boyle's Law, Charls Law, Avogandro	2.5
27	Law, universal law gas constant, ideal	2.5
28	Process with equation, other equation	2.5
29	of states Numerical.	2.5
30	PROPERTIES OF PURE SUBSTANCE	2.5
31	Phase change phenamenon of Pure Sub	2.5
32	stence, Phase change diagram of Pure	2.5
33	substance, P-V, T-S and h-s	2.5
34	diagram for phase change substance	2.5
35	like steam, critical point paramaters	2.5
36	triple point propertie table, P-V, TS diagram	2.5
37	representing process of steam, Dryness	2.5
38	fraction and its Measurement	2.5
39	EXTRA LECTURE FROM 38-42	2.5 %
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PORTION COVERED

L.No.	Date	TOPIC	ATT.
1	14/9/22	Fundamental concept and defination	
2	17/9/22	thermodynamic system and its type	
3	18/9/22	like open system closed system isolated	
4	19/9/22	system, microscopic view and macro	
5	20/9/22	scopic view, homogeneous and	
6	22/9/22	hct, properties, processes and cycle	
7	29/9/22	point fuction, path fuction, Thermodya	
8	30/9/22	namic Equilibrium, Quasi static	
9	31/9/22	process, work and heat transfer,	
10	6/10/22	Heat transfer, Zeroth Law, Specific	
11	7/10/22	heat and latent, heat, unit Explanation	
12	13/10/22	first law of thermodynamic why its	
13	21/10/22	invented its drawbacle, Explanation	
14	23/10/2022	for joules law, change in state and	
15	23/11/22	energy, different form of first law	
16	24/11/22	related to energy enthalpy, Perpectual	
17	30/11/22	motion machine I, Control volume	
18	1/12/22	application. First law for steady flow	
19	7/12/22	processes, nozzle flow, turbine,	
20	8/12/22	compressor, boiler and applications,	
21	15/12/22	second law of thermodynamics,	
22	16/12/22	limitation of first law, various types	
23	19/12/22	of cycle, heat engine, second law	
24	21/12/22	statement Kelvin Planck statement	
25	22/12/22	clausis statement and explanation,	
26	23/12/22	and their equivalence, Reversibility	
27	26/12/22	and irreversibity, carnot theorem,	
28	28/12/2022	Abgolute thermodynamic, state, T-s plot	

TEACHER H.O.D. PRINCIPAL

PORTION COVERED

L.No.	Date	TOPIC	ATT.
29	29/12/22	clausium inequility, Entropy disorder	
30	30/12/2022	Ideal gas, boyle law, charles law,	
31	31/12/22	Avegandro universal gas law constant	
32	2/1/23	and Explanation. ideal process with	
33	4/1/23	Equation, Other equation and state of	
34	5/1/23	Numericals.	
35	9/1/23	Properties of pure substance phase	
36	10/1/23	change phenemenon of pure substance	
37	11/1/23	Phase change diagram, of pure substance	
38	12/1/23	p-v, and t-s diagram, and H-S	
39	13/1/23	diagram for phase change substance	
40	16/1/23	like steam, critical point temperature	
41	16/1/23	tripple point, table Reading for steam	
42	23/1/23	Dryness fraction and its measurement.	
43	24/1/23	Revision of chapter: 1 & 2	
44	25/1/23	Revision of chapter: 2 & 3	
45	1/2/23	Revision of chapter: 3 & 4	
46	2/2/23	Revision of chapter: 4 & 5	
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TEACHER H.O.D. PRINCIPAL

!- B.Tech (ME). Sem-I

d!- Mechatronics A.Y- 2022-23.

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	Unit I - Introduction - Mechatronics systems, elements	17%
2	Practical examples of system. Sensors & Transducers	
3	various sensors used in mtx system, Pressure, Temp,	
4	sensors, Velocity & Accelerator sensors, Force sensors,	
5	Optical encoders, Capacitive level sensors, selection.	
6	Unit-2. Signal conditioning & Data Representation.	
7	Types of electronic signals, Need of signal processing,	
8	OAMPS - Types, classification, applications, Opto isolators,	17%
9	Protection Devices, ADC, DAC, Interfacing devices,	
10	Relays, Displays, Seven segment type, LCD, Data loggers.	
11	Unit 3 - Drives: Types of Electric Motors, AC & DC,	17%
12	DC servomotors, Stepper motors, Linear motors etc.	
13	Pneumatics & Hydraulics, - actuators, DC Valves, P cir	
14	preparation, FRL Unit, Sequencing of P. cylinders, etc	
15	Hydraulic Cylinders, Design of cylinders, Meter in, Meter out ckts,	
16	Unit 4 - Micro processor & Microcontroller, 8085 ups,	17%
17	Architecture, types of registers & their functions,	
18	Instruction set, interfacing, applications, 8051 ups,	
19	Instruction set, pins & their function, interfacing, applications,	
20	PLC - Architectures, Types of I/P & O/Ps, Programming, etc.	
21	Unit 5 (control) Systems - open loop & closed loop systems,	17%
22	Block diagrams manipulation/reduction, Transfer function	
23	Modelling of Mechanical systems using springs	
24	continued: Modelling	
25	Dashpot & mass equivalance.	
26	Unit 6 :- Stability of Systems. Introduction.	17%
27	On/off Controller, Proportional, Integral control,	
28	Derivative control. systems, PI, PD & PID	
29	Controllers. Introduction to control using state variable	
30	system models. Bode Plots & Stability criteria	
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32		Total = 100%
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ABG

Class:- B.Tech (Final Year) A.Y.- 2022-23

Subject:- Mechatronics Sem-I

PORTION COVERED

L.No.	Date	TOPIC	ATT.
1	12-9-22	Unit I - Introductions, Mechatronics systems & Elements.	
2	14-9-22	Practical examples of systems, Sensors & Transducers	
3	15-9-22	Various sensors used - Pressure, Temperature.	
4	19-9-22	velocity, acceleration and force sensors	
5	21-9-22	Optical Encoder, capacitive level sensors, selections,	
6	22-9-22	Unit II - Signal conditioning & Data Representation Introduction.	
7	26-9-22	Types of electronic signals, Need of signal processing	
8	28-9-22	OP-Amps, Types, classification, applications, Optoisolators.	
9	29-9-22	Protection Devices, ADC, DAC, Interfacing devices	
10	3-10-22	Relays, Displays, Seven segment Type, LED, Data loggers.	
11	6-10-22	Unit 3 - Drives. Types of Electric motors, AC, DC,	
12	10-10-22	DC servomotors, Stepper motors, Linear motors etc.	
13	12-10-22	Pneumatics & Hydraulics - Actuators, DC Valves, Pair	
14	13-10-22	preparation, FRL Unit, sequencing of Cylinders etc.	
15	18-10-22	Hydraulic Cylinders, Design, Meter in, Meter out ckts,	
16	20-10-22	Unit 4 - Microprocessors & Microcontroller - 8085 µps,	
17	21-10-22	Architecture, Types of registers & their functions	
18	25-10-22	Instruction set, Interfacing, applications, 8051 µps	
19	27-10-22	Instruction set, pins & their function, interfacing & applications.	
20	28-10-22	PLC Architecture, types, I/P, O/P, programming etc.	
21	10-11-22	Unit 5 - Control Systems, - Open Loop & Closed loop systems -	
22	11-11-22	block diagram manipulations/reduction, Transfer function.	
23	11-11-22	Modelling of Mechanical systems using springs	
24	15-11-22	Modelling continued...	
25	17-11-22	Dash pot & Mass equivalance.	
26	18-11-22	Unit 6 - Stability of System - Introduction.	
27	18-11-22	ON/OFF controllers, Proportional, Integral controls,	
28	22-11-22	Derivative control system, PI, PD & PID controllers	

TEACHER H.O.D. PRINCIPAL

Class:- Second Year **TEACHING PLAN** Prof: ABG

Subject:- Fluid Mechanics (AS PER UNIVERSITY SYLLABUS) Sem-I

A.Y-2022-23.

SR.NO.	(FM). TOPIC	% SYLLYBUS
1	Unit 1 - Fluid Properties & Hydrostatic - Fluid Properties &	
2	def^n. def^n of fluid. Viscosity, Bulk Modulus of elasticity, Fluid	
3	Vapour Pressure, Surface Tension, Capillarity, Manometers,	
4	Pascal's Law. Hydrostatic law its derivation, Total Pressure &	
5	Centre of pressure on vertical, Horizontal, inclined surfaces	20%
6	Concept of Buoyancy & floatation, Meta centre, & Meta centric	
7	height. Stability equilibrium of floating & submerged body.	
8	Unit 2 - Fluid Kinematics & Dynamics. Types of flow, Steady,	
9	Unsteady, Uniform, Non-uniform etc. 1D, 2D flows, stream	
10	lines, streak lines, path lines. Concept of velocity, potential	
11	& stream function, flow net. Continuity equation for	20%
12	steady, unsteady, Uniform, Non uniform, compressible,	
13	2D Eulers equation, Bernoulli equation along stream line	
14	for incompressible flow. Its practical applications.	
15	Unit 3 - Viscous Flow & Turbulant Flow.	
16	Introduction, to flow of viscous fluids through circular pipes.	
17	two parallel plate derivation and numericals.	
18	Numericals continued on viscous flow.	20%
19	Turbulant flow: Reynolds experiment, frictional	
20	loss in pipe flow, problems continued.	
21	Major & Minor losses numericals.	
22	Unit 4. - Dimensional Analysis & flow through pipes Introduction,	
23	dimensional homogeneity, methods of dimensional analysis,	
24	Rayleigh's Method, Buckinghams π theorem, dimensional number.	
25	Loss of energy in pipes, loss of energy due to friction,	20%
26	Minor energy losses, concept of HGL & TEL. Flow	
27	through syphons, pipes in series, & compound pipes	
28	equivalent pipes, parallel pipes branched pipes, Water hammer	
29	Unit 5 - Centrifugal Pumps - Introduction, its main	
30	parts, working & construction of centrifugal pump.	
31	Types of impellers, types of casings, priming.	
32	Work done on centrifugal pump, various heads &	20%
33	efficiencies. Minimum starting speed of a centrifugal	
34	pump, Multistage centrifugal pump, principle of similarity,	
35	applied to centrifugal pumps.	
36		Total = 100%
37	36 to 41 - Extra Lectures conducted.	Deleted
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Class:- S.Y. B.Tech (Mechanical).

Subject:- Fluid Mechanics.

PORTION COVERED

A.Y- 2022-2023
Sem-I

L.No.	Date	TOPIC	ATT.
1	12-09-22	Unit 1 - Fluid Properties & Hydrostatics, defination,	
2	13-09-22	Fluid Properties, definition of fluid, viscosity, Bulk Modulus,	
3	15-09-22	of elasticity, Vapour Pressure Surface Tension, Capillarity.	
4	16-09-22	Pascals law, Hydrostatic law & its derivation, Total Pressure &	
5	19-09-22	centre of Pressure on vertical, horizontal & inclined S/f,	
6	20-09-22	Concept of Buoyancy & floatation, Metacentre & M.height.	
7	22-09-22	Stability, Equilibrium of floating & submerged bodies.	
8	23-09-22	Unit 2 - Fluid Kinematics & Dynamics - Types of flows,	
9	26-09-22	steady, Unsteady, Uniform, Non-Uniform etc, 1D, 2D, flows,	
10	27-09-22	stream lines, streak lines, path lines, Concept of velocity,	
11	29-09-22	potential & stream function, flow net, continuity eqn for	
12	30-09-22	steady, unsteady, uniform, non-uniform, compressible etc.	
13	3-10-22	2D Eulers Equation, Bernoullis eqn along streams lines	
14	4-10-22	for Incompressible flows. Practical applications	
15	6-10-22	Unit 3:- Viscous flow & Turbulant flow - Introduction.	
16	13-10-22	Flow of viscous fluids through circular pipes	
17	14-10-22	Two parallel plate derivation, & numericals,	
18	17-10-22	Numericals continues on Viscous flow.	
19	18-10-22	Turbulant flow, Reynolds Expesiment, frictional	
20	20-10-22	loss in pipe flow, Problems continued.	
21	21-10-22	Major & Minor losses - Problems on same.	
22	25-10-22	Unit 4:- Dimensional Analysis & flow through pipes, Introduction.	
23	27-10-22	Dimensional homogeneity, methods of dimensional analysis	
24	28-10-22	Rayleighs Method, Buckinghams π theroom, dimensional numbers	
25	31-10-22	Loss of energy in pipes, Loss of energy due to friction	
26	07-10-22	Minor energy losses, Concept of HGL & TEL.	
27	01-11-22	Flow through syphons, pipes in series, Compound pipes	
28	03-11-22	equivalant pipes, parallel pipes, branched pipes, water hammer	

TEACHER H.O.D. PRINCIPAL

PORTION COVERED

No.	Date	TOPIC	ATT.
29	04-11-22	Pumps - Centrifugal Pumps - Introduction, its main parts,	
30	7-11-22	Working & construction of C. pumps,	
31	10-11-22	Types of impeller, Types of casing, priming.	
32	14-11-22	Workdone on centrifugal pump, various heads &	
33	15-11-22	efficiencies. Minimum starting speed of C. pumps,	
34	17-11-22	Multistage Centrifugal Pumps, Similarity Principle,	
35	18-11-22	applied to centrifugal pumps,	
36	21-11-22	Revision Lecture - Problems on Unit V	
37	22-11-22	Revision Lecture - Problems on Unit 1.	
38	24-11-22	Revision Lectures - Problems on Unit 2	
39	25-11-22	" Lecture - Problems on Unit 3.	
40	28-11-22	Revision Lecture - Problem on Unit 4.	
41	29-11-22	Revision Lecture - Problems on Unit 5.	
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TEACHER H.O.D. PRINCIPAL

Subject-MP-II
BTech (final year)

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

Prof. A.R. Nanwatkar
SEM-I
A.Y. 2022-2023

SR.NO.	TOPIC	% SYLLYBUS
1	Numerical control, CNC, classification of NC/CNC.	18%
2	Basic components of CNC system: Design consideration	
3	structure, friction LM guideways spindles	
4	ball screw, CNC Drives and controls DC motors, AC	
5	Motors feedback devices.	
6	tachometer servo motor linear motors.	
7	CNC Tooling & Programming: CNC Tool and work	
8	holding devices, Automatic Tool changer	
9	Automatic pallet changer programming	
10	introduction, part programmed	18%
11	its element, methods of programming	
12	manual and computer Assisted	
13	part programming, language.	
14	Advanced Machining Processes. introduction	
15	chemical machining electrochemical machining	
16	pulsed electrochemical machining, electro-	
17	chemical Grinding, electrical-discharge wiring	18%
18	Wire EDM electrical-discharge Grinding	
19	laser-beam machining, electrobeam milling	
20	waterjet, Abrasive jet Machining	
21	surface Treatment and coatings: introduction	
22	mechanical surface Treatments, Mechanical plating	
23	and cladding Thermal Spraying, Vapour Deposition	
24	physical Vapour deposition, Chemical Vapor deposition	
25	Ion implementation and Diffusion coating, Laser Treat-	18%
26	Electroplating electroless plating & electroforming, Hot dipping	
27	ceramic and organic coating, Diamond coating Surface	
28	Rapid Prototyping: introduction subtractive, Basic	
29	additive process fused-deposition modeling SLS	
30	multijet/polyjet selective laser sintering EBM, 3D printing	18
31	Laminated object manufacturing. solid-ground curing	
32	Laser-engineered Net shaping, virtual prototyping	
33	direct manufacturing & Rapid tooling	
34	Micromanufacturing Technology: introduction	
35	to fabrication of MEMS, micromachining process,	10%
36	device, Bulk micromachining, Surface micromachining	
37	LIGA, Microfabrication Process, solid free form	
38	fabrication of devices, Nanocrystal & mfg.	
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PORTION COVERED

L.No.	Date	TOPIC	ATT.
1	5/09/2022	Introduction to CNC system, Numeric controls. Basic components of CNC system	
2	6/09/2022	classification of CNC/HC system Desig	
3	8/09/2022	construction, Antrfriction, spindles Lm guides ball screw.	
4	12/09/22	CNC drives & controls, DC motors	
5	13/09/22	feedback devices, stepper motor, servomotor.	
6	19/09/22	tachometer, Stepper motor servo motors	
7	20/09/22	CNC tooling Basic concept	
8	22/09/22	CNC tool & work holding devices	
9	27/09/22	Automatic tool changer & pallet changer	
10	3/10/22	introduction to part programming	
11	6/10/22	Numerical on part programming	
12	13/10/22	Advanced machining processes. introduction,	
13	14/10/22	Electric discharge machine, wire EDM	
14	2/11/22	Electric discharge Grinding, water jet M/C	
15	3/11/22	Abrasive jet machine, chemical M/C	
16	14/11/22	Laser beam M/cing, electrochemical	
17	17/11/22	electro chemical Grinding.	
18	21/11/22	Rapid prototyping mesh & introduction	
19	24/11/22	subtractive & additive processes	
20	25/11/22	Fused deposition models FDM	
21	1/12/22	Stereolithographs SLS process	
22	02/12/22	selective laser sintering	
23	8/12/22	laminated object mfg 3D printing	
24	9/12/22	3D printing solid ground curing	
25	12/12/22	surface treatment & coating, mech. finish	
26	15/12/22	Thermal Spraying & Vapor deposition	
27	16/12/22	physical & chemical Vapour deposition.	
28	19/12/22	electro plating & electroforming.	

TEACHER H.O.D. PRINCIP

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	Introduction to Economics: Flow in an economy	18%
2	Law of supply and demand, Concept of Engg	
3	economics, Engg efficiency Economic effe	
4	Scope of engg economics. Elements of cost	
5	Margin of cost marginal Revenue, Sunk cost	
6	opportunity cost, Bx at even analysis, V ratio.	
7	elementy economic analysis process planning	
8	Value Engineering: Make or buy decision, Value engg	
9	Function, aims and value engineering procedure.	
10	Interest formulae and their applications Time value	
11	of Money, single payment method amount factor	18%
12	single payment Present worth factor Equal	
13	payment series sinking fund factor. Equal	
14	payment series Payment Present worth factors.	
15	Cash flow: methods of comparison of alternatives	
16	Present worth method, future worth method	
17	Annual equivalent method rate of	
18	return method, Examples in all the	
19	methods.	
20	Replacement and Maintenance Analysis	18%
21	Replacement and maintenance analysis:	
22	Types of Maintenance, types of replacement	
23	problem, determination of economic life	
24	of an asset, Replacement of an asset	
25	with a new asset, capital recovery	
26	with return & concept of challenger	
27	and defender, Simple probabilistics	
28	model for items which fail completly	
29	Depreciation: introduction, straight line	
30	method of depreciation declining	
31	balance method of depreciation	18%
32	Sum of the years digits method of depr-	
33	ciation sinking fund method of	
34	depreciation/ annuity method of	
35	depreciation service output method of	
36	depreciation.	
37	Evaluation of Public Alternatives	10%
38	introduction, examples, inflation	
39	adjusted decisions procedure to adjust	
40	inflation, Examples on comparison of	
41	alternatives and determination of economic	
42	life of asset.	
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PORTION COVERED

L.No.	Date	TOPIC
1	15/9/22	Introduction Economics, Law of Supply Demand
2	16/9/22	elements of cost opportunity cost
3	22/9/22	marg cost, Break even analysis
4	25/9/22	value engg Mak or buy decision.
5	29/11/22	Replacement & Maintenance analysis
6	6/12/22	Types of maintenance
7	13/12/22	Introduction Depreciation method.
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TEACHER

H.O.D.

Subject - Heat Transfer
CODE - BTMEC801
TY. B.Tech

Subject Teacher
Prof. F.M. Al;

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	Heat transfer mechanism, laws of heat transfer	2%
2	Conduction heat transfer Thermal conductivity	4%
3	Convection heat transfer radiation heat transfer	6%
4	General heat conduction equation Boundary initial	8%
5	one dimensional steady state conduction	10%
6	the slab the cylinder, the sphere	13%
7	Composite systems	15%
8	Thermal Contact Resistance	18%
9	critical radius of insulation, Electrical Analogy	20%
10	Overall heat transfer coefficient	22%
11	Heat source system, variable thermal conductivity	24%
12	External surfaces, Lumped system Analysis	26%
13	Biot Number & Fourier number, Heisterchart	28%
14	Principle of convection Continuity	30%
15	Momentum of energy equations	33%
16	Hydrodynamic & Thermal boundary layer	35%
17	plate & pipe flow	37%
18	Dimensionless for g forg convection,	39%
19	Relation between fluid friction & heat transfer	42%
20	Force convection Empirical relations for pipe	46%
21	Tube flow, flow across cylinder, sphere	48%
22	Force convection from vehicle	52%
23	Inclined & horizontal surface	55%
24	cylinder & sphere	57%
25	Boiling & condensation filmwise	60%
26	Drop wise condensation	63%
27	Pool boiling regimes	65%
28	Forced convection boiling	67%
29	Introduction to Mass Transfer	68%
30	Introduction mechanism of Diffusion	72%
31	Law of Mass transfer	75%
32	Mass Diffusion coefficient	77%
33	Heat Exchangers Types of heat exchanger	79%
34	Radiation Heat Transfer	82%
35	Introduction thermal Radiation	84%
36	Black body Radiation	86%
37	Radiation laws, Radiation properties	88%
38	Atmospheric & Solar radiation	90%
39	The view factor Radiation heat transformation	92%
40	Black Body Radiation	94%
41	Radiation laws Radiation properties	96%
42	Atmospheric & Solar Radiation	98%
43	The view Factor Radiation	
44	Grey Surface diffuse surface	100%
45	Radiation shields & the radiation effects	

Prof. A.R. Narwade
Subject:- MP-II
Sem II (22-23)

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

R.NO.	TOPIC	% SYLLYBUS
1	Abrasive & Bonded Abrasive, Grinding Wheels.	20%
2	Bond types, Wheel Grade & Structure	
3	Grinding process, Grind-wheel wear Grinding ratio,	
4	Dressing, turning & shaping of Grinding wheel.	
5	Grindability of materials, Wheel	
6	selection Grinding operation, Grinding fluid	
7	Finishing operation.	
8	Geometry of single point cutting tool term	20%
9	& definition, Chip formation Forces acting	
10	on the cutting tool & their measurement	
11	Specific cutting energy, Plowing forces	
12	the size effect, effect of Strength	
13	of the work material, Chip thickness	
14	theory of ernst & merchant.	
15	Temp in metal cutting, heat generation in	20%
16	metal cutting, temp. distribution in metal	
17	cutting, effect of cutting speed on	
18	temp. measurement cutting temp. tool	
19	life, tool wear, form of wear in metal cutting	
20	Crater wear, Flank wear, tool life cutting	20%
21	of material HSS, cemented, Carbide, Ceramics	
22	production of metal powder, mixing of powder,	
23	particle size, shape & distribution	
24	blending metal powders.	
25	Compaction of metal powders,	
26	equipment, Isostatic Pressing of	
27	Sintering,	
28	Secondary & finishing operation	
29	Processing of plastic, extrusion, production	20%
30	of of polymer, Reinforcing fibres	
31	injection moulding, Reaction-injection	
32	moulding, Blow, moulding, Rotational	
33	moulding, Thermoforming, compression moulding	
34	Transfer, Molding, foam moulding,	
35	Cold forming, Solid phase forming, elastomers.	
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HEAD OF DEPARTMENT
Mechanical Engineering
PES College of Engineering
Aurangabad

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

Subject:- SOM.

Sem - II (22-2

SR.NO.	TOPIC	% SYLLYBUS
1	Unit-I Simple stress & Strain:- Mechanical Properties of materials	
2	analysis of internal forces, simple stresses & strains, stress-strain	
3	curve, Hooke's law, modulus of elasticity, shearing, thermal	
4	stress, Hoop stress, Poission's ratio, Volumetric stress, bulk modulus,	20%
5	shear modulus, relationship between elastic constants &	
6	Problems, Principal stresses & strains simple shear stress, 2D state	
7	Problems of stress, Principal stress & Planes shear strains.	
8	Unit-II Strain energy, resilience & Combined stresses, Combined	
9	axial & flexural loads, middle third rule, kernel of	
10	a section load applied off the axes of symmetry.	90%
11	Shear & Moment in Beams:- Shear & moment, interpretation	
12	of vertical shear & bending moment, relation among load	
13	& shear moment, Problems	
14	Unit 3:- Stresses in Beams:- M.I. of different sections,	
15	bending & shearing stresses in beams, theory of simple bending	
16	derivation of flexural formula, economic sections, horizontal	
17	& vertical shear stress, distribution of shear stress for different	20%
18	geometrical sections, solid circular I, T sections, other section	
19	design for flexural & shear	
20	Problems:-	
21	Problems:-	
22	Unit-04:- Torsion:- Introduction, derivation of torsion	
23	formula, torsion of circular shafts, stresses & deformation	
24	in determinate solid/homogenous/composite shafts, torsional	
25	strain energy. Columns & Struts:- Concept of solid short	20%
26	and long colums, Euler and Rankines formula, limitation of	
27	Euler's formula, equivalent length, eccentrically loaded	
28	short compression members.	
29	Problems:-	
30	Problems:-	
31	Unit 05:- SFD & BMD:- Introduction of different types	
32	of beams, supports, and load concept & definition of shear	
33	force & bending moment in determinate beams due to	
34	concentrated loads, UDL, UVL & couples. Relation bet SF	80%
35	& BM and intensity of loading. Construction of SF & BM for	
36	cantilever simply supported and compound beams, point of	
37	contraflexure. Construction of BMD & load diagram from	
38	SFD, Construction of load diagram and SFD from BMD.	
39	Problems	
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44	Problems	
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HEAD OF DEPARTMENT
Mechanical Engineering
PES College of Engineering
Aurangabad

: Prof. Gawali A.A
: E- vehicles
: Sem II (22-2

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	unit I : Introduction to EV	2.5
2	Past, Present & future of EV, current	2.5
3	Major issues, Recent developments Trends,	2.5
4	EV concept, Key EV Technology, State of	2.5
5	Art of EV, Comparision of EV Vs IC Engine	2.5
6		2.5
7	Unit II : EV System	2.5
8	EV configuration: Fixed & variable gearing	2.5
9	Single & Multiple motor drive, In wheel	2.5
10	drive, EV parameters, weight size	2.5
11	force Energy and performance para	2.5
12	meter	2.5
13	unit III : EV propulsion	2.5
14	Eletric mater choice of eletric propulsion system	2.5
15	block diagram of EV propulsion System, concept	2.5
16	of EV motor, Single motor and multi motor	2.5
17	configuration, fixed and variable generated	2.5
18	transmission classification of EV motor,	2.5
19	Eletric mater used in current vehicle,	2.5
20	Required power eletronic & control,	2.5
21	Comparision of EV power device, introduction	2.5
22	to power Eletronic converter, four quadrant	2.5
23	DC chopper, Three power two bridge	2.5
24	voltage phase inverter, EV converter	2.5
25	unit IV : EV mater Drive	2.5
26	DC mater: Type of wound field DC mater	2.5
27	torque speed characteristic :, DC-AC	2.5
28	convierter, Induction mater drive, Single	2.5
29	Phase ABS inverter topology, speed control	2.5
30	of induction mater, FOC, Adaptive control	2.5
31	model reference, sliding mode control	2.5
32	unit V :	2.5
33	different batteries, charging & discharging	2.5
34	battery Arrangement, Basic charger circuit	2.5
35	Arrangement of off-board conductive charges	2.5
36	microprocessor based charger unit, Domestic	2.5
37	charging, Infrastructure, public charging	2.5
38	Infrastructure, Normal charging station,	2.5
39	Fast charging station, Battery swapping	2.5
40	station, Mode 4 charge zone	2.5
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HEAD OF DEPARTMENT
Mechanical Engineering
PES College of Engineering
Aurangabad

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

Prof. P.L. Pandit
Subject:- MOOC
Sem:- III (22-23)

R.NO.		TOPIC	% SYLLYBUS
1		Intro:- Managing, Managers, Introduction	
2		Management Science Theory	
3		Taylor & Fayol Principle	10%
4		Planning - Nature & Purpose, objectives	
5		Functions of Management.	
6		Organizing - Nature & purpose.	
7		Departmentation. Line / Staff Authority.	
8	II	HRM - Mangent & Selection, orientation.	
9		apprentice trainig and Apprentic act 1961.	20%
10		Performance appriasal and Carrer Strategy.	
11		Job Evalutation and merit rating	
12		Merit Rating.	
13		Incentive Schemes. Human factors, motivation	
14		Team building & communication.	25%
15		Controlling :- Process controlling, Overall &	
16		Prventive Control.	
17	III	Production/operation Mangent :- Corporate Policy	
18		Competitiveness, Types & Characteristics.	45%
19		Manufacturing System, Service System.	
20		Operation planning & Control	
21		Operation Scheduling.	
22	IV	Industrial Engg. Scope & functions.	
23		Contribution of Taylor, Gilbreth	65%
24		Gantt & others.	
25		Work Study :- Techniques & Advntages	
26		Method Study - " " "	
27		Work measument - Stopwatch, Time study	
28		micro motion Study.	
29		PTS (predetermined time system) work sampling	80%
30	V	Ergonomics. Basic Principle	
31		Concurent Engg. Producibility, manufacturing	
32		Productivity improvment.	
33		TQM - Intro & importance.	
34		JIT - Just in Time	100%
35		Total quality Control	
36		quality circles	
37		Six Sigma	
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P.E.S. College of Engineering * Mechanical Department *

TEACHING PLAN
(AS PER UNIVERSITY SYLLABUS)

Prof. A.B. Gadekar
Subject: Fluid Machines
Sem II, (2022-23).

SR.NO.	TOPIC	% SYLLYBUS
1	Unit 1 - Momentum Equation & its Application - Introduction,	
2	Impulse Momentum Principle, Fixed & Moving Flat Plates,	
3	curved Plates/Vanes, series of plates/vanes, Velocity Triangle	
4	& their analysis. Water wheels, Hydrodynamic gates:	
5	Classification, General theory, Centrifugal head: Fundamental	20%
6	equations, Euler's equation, Degree of reaction, Heal on's,	
7	various efficiencies, condition for Maxm Hydraulic efficiency.	
8	Unit 2: Impulse & Reaction Turbines - Impulse Principle,	
9	Construction of Pelton wheel, Velocity diagrams & its	
10	analysis, Number of buckets, Jets, speed ratio,	20% = 4C
11	Jet Ratio. Reaction Turbines - Constructional	
12	details of Francis, Kaplan, & propeller turbine,	
13	Deriaz Turbine, and draft tube types.	
14	Efficiencies & Cavitation.	
15	Unit 3: Governing of Turbines. Introduction,	
16	Methods of Governing	
17	Performance Characteristics,	
18	Safety Devices, selection of turbines,	20% = 6C
19	Unit Quantities, Specific Speed,	
20	Principal of similarity & model testing,	
21	Problems on above topics.	
22	Unit-4 - Centrifugal Pump. Construction,	
23	classification, Terminology, Velocity triangle &	
24	their analysis, Cavitation, NPSH, Thomas	
25	Cavitation factor, Priming, Methods of priming,	20% = 8
26	Specific speed, Performance characteristics, Actual	
27	thrust & its compensation, Multi Stage Pump - Pump H-Q,	
28	characteristics, System in series & parallel.	
29	Unit 5 Special Purpose Pump. Chemical Pumps,	
30	Nuclear pumps, Sewage pumps, Submersible pumps,	
31	deep well pumps, Pump installation, Energy efficient	
32	pump. failure of pumping system, Pump failures,	20%
33	Remedies, Source failure causes & Remedies	
34	Troubleshooting. Misc. Pumps, Reciprocating pumps,	= 10
35	Gear Pump, Vane pump Lobe pump etc.	
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Prof. A-R Naswa
Subject:- MP-I
Sem II (22-23

TEACHING PLAN

(AS PER UNIVERSITY SYLLABUS)

SR.NO.	TOPIC	% SYLLYBUS
1	unit-1 introduction & casting process: Whats Mfg.?	
2	selection of mfg. process introduction to casting solidification	
3	of metals pure metals alloys, fluid flow fluidity	
4	of molten metal, heat transfer solidification	20%.
5	time, shrinkage. defects porosity metal	
6	casting process: sand casting shell mold casting	
7	investment casting die casting centrifugal casting.	
8	metal form: Rolling introduction Flat Rolling	
9	processes: Roll force Torque & power Requirement	
10	Geometric consideration Flat rolling practices	
11	defects in roller Plates & sheet. Rolling mills.	20%.
12	introduction to forging, open die forging	
13	impression die & closed die forging various forging	
14	operation forging defects forging machines.	
15	welds joining process: oxy-fuel gas, Arc welding	
16	Processes, Non consumal electrode, Arc welding	
17	Process, consumable electrodes, shielded metal	20%.
18	arc welding submerged arc welding Gas	
19	welding weld joint quality weld quality.	
20	solidate state welding friction welding Resistance	
21	spot welding Projection welding	
22	Theory of Process lathe operation lathe components	
23	work holding devices accessories lathe operation	
24	types of lathe types of clips Boring & Boring	20%.
25	Drilling & Drills materials & size Drilling	
26	Practices, Drilling machine Reaming	
27	operation & Reamer	
28	Tapping & Taps.	
29	milling & milling machine peripheral milling	
30	face milling End milling other milling	
31	milling cutter tool holder,	
32	milling Process Capabilities	20%.
33	milling Machines planning Shaping	
34	Broaching Machines, Gear making by	
35	mfg. forming cutting Gear Mfg. Gear finishing.	
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P.E.S College of Engineering, Nagssenvana, Aurangabad

Department of Mechanical Engineering

Time Table SEM I, A.Y 2022-23 Revised

With effect from 05-09-2022

Class	TE						Room No.	
Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TE1-TOM AMB TOM Lab; TE2-MDI Dr.MMD DH2;		HT Prof FMA CR2	AT Prof AAG CR2	TOM II Prof AMB CR2	AE Prof VDS CR2
Tuesday			AE Prof VDS CR2	MD I DR MMD CR2	AT Prof AAG CR2	HT Prof FMA CR2	RES DR SKU CR2	
Wednesday			AT Prof AAG CR2	MD I DR MMD CR2	TOM II Prof AMB CR2	RES DR SKU CR2	TE1-MDI Dr.MMD DH2 TE2-HT FMA HT LAB	
Thursday			HT Prof FMA CR2	MD I DR MMD CR2	AT Prof AAG CR2	TOM II Prof AMB CR2	TE1-HT FMA HT LAB TOM AMB TOM Lab	TE2-
Friday			AE Prof VDS CR2	HT Prof FMA CR2	TOM II Prof AMB CR2	RES DR SKU CR2	MD I DR MMD CR2	
Saturday							Batches, TE1-Roll NO 1-30 TE2-Roll NO 31-onwords	

Prepared by
Prof. FAISAL. M. ALI

Checked by
Prof. A.A.GAWLI

Head,
Dept. of Mechanical Engineering
Dr. R.G.PUNGLE

Principal
Dr. A.P.Wadekar

P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23 Revised

Class BE With effect from 05-09-2022 Room No.

Period	1	2	3	4	5	6	7	8
	8.30 To 11.30			11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday	Training AI+ML			IEM Prof PLP CR1	CAD-CAM Prof NDD CR1	MPIII Prof ARN CR1	BE1-CAD-CAM Prof NDD CAD-CAM Lab BE2 MTX Prof ABG MQC Lab;	
Tuesday	Training AI+ML			EL(AU) EE/WE Prof ARN/FMA CR1/RAC LAB	IEM Prof PLP CR1	MTX Prof ABG CR1	BE2-CAD-CAM Prof NDD CAD-CAM Lab BE1 MTX Prof ABG MQC Lab;	
Wednesday	Training AI+ML			IEM Prof PLP CR1	CAD-CAM Prof NDD CR1	EL(AU) EE/WE Prof ARN/FMA CR1/RAC LAB	MPII -Prof PLP- IHP Lab Seminar	BE1- BE2-
Thursday	Training AI+ML			CAD-CAM Prof NDD CR1	MPIII Prof ARN CR1	MTX Prof ABG CR1	MPII -Prof PLP- IHP Lab Seminar	BE2- BE1-
Friday	Training AI+ML			MPIII Prof ARN CR1	MTX Prof ABG CR1	EL(AU) EE/WE Prof ARN/FMA CR1/RAC LAB	PROJECT	
Saturday	Training AI+ML						Batches, BE 1-Roll no- -A-1 to -A-23 BE 2--Roll no--A-24 to -B-1 BE 3-Roll no--B-3 to TYM-B34 BE 4-Roll no--B-36 to Onwards	

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23 Revised.

Class SE — With effect from 05-09-2022 — Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TD Prof AAG CR3	FM Prof ABG CR3	SE1-- CAD VDS CAD Lab; SE2-FM ABG FM Lab SE3--MSM DR RGP META Lab;		EM III Prof SRK CR3	
Tuesday			FM Prof ABG CR3	MSM Dr RGP CR3	SE1--MD ARN DH2 SE2- MSM DR RGP META Lab; SE3 CAD VDS CAD Lab;		EM III Prof SRK CR3	
Wednesday			SE1-MSM DR RGP META Lab; SE2 -MD ARN DH2 SE3--FM FMA FM Lab		TD Prof AAG CR3	MSM Dr RGP CR3	SE1-FM ABG FM Lab SE2- CAD VDS CAD Lab; SE3---MD ARN DH2	
Thursday			TD Prof AAG CR3	FM Prof ABG CR3	EM III Prof SRK CR3	MSM Dr RGP CR3	CI Prof VDS CR3	
Friday			FM Prof ABG CR3	EM III Prof SRK CR3	MSM Dr RGP CR3	TD Prof AAG CR3		
							Batches, SE 1-Roll NO 1-20 2-Roll NO 21-40 SE 3- Roll NO 41 onwords	SE

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. Dr.MMD With effect from 05-09-2022 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TE 2 MDI DH2				DME I TE A CR3	
Tuesday				MDI TE CR2				
Wednesday				MDI TE CR2	TE 1 MDI DH2			
Thursday							MDI TE CR2	
Friday				DME I TE A CR3			TE 3 MDI DH2	
Saturday								

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Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof.	Dr.RGP			With effect from	05-09-2022		Room No.	
Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday					SE2 MSM META Lab			
Tuesday				MSM SE CR3	SE3 MSM META Lab			
Wednesday						MSM SE CR3		
Thursday			SE1 MSM META Lab			MSM SE CR3		
Friday						MSM SE CR3		
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. DR SKU | With effect from 05-09-2022 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday								RES TE CR2
Tuesday						RES TE CR2		
Wednesday								RES TE CR2
Thursday								
Friday								
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. AMB | With effect from 05-09-2022 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TE 1 TOMII TOM LAB					
Tuesday			TOMII TE CR2					
Wednesday				TOMII TE CR2	TE 3 TOMII TOM LAB		TOMII TE CR2	
Thursday								
Friday					TOMII TE CR2		TE 2 TOMII TOM LAB	
Saturday								

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Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. NDD | With effect from 05-09-2022 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday					BE 1 CAD-CAM CAD-CAM Lab			
Tuesday				CAD-CAM BE CR1	BE 2 CAD-CAM CAD-CAM Lab			
Wednesday					BE 4 CAD-CAM CAD-CAM Lab			
Thursday			CAD-CAM BE CR1		BE 3 CAD-CAM CAD-CAM Lab			
Friday				CAD-CAM BE CR1				
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. PLP | With effect from 05-09-2022 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			IEM BE CR1		BE 4 MPII MQC Lab			
Tuesday					BE 3 MPII MQC Lab			
Wednesday				IEM BE CR1	BE 1 MPII MQC Lab			
Thursday					BE 2 MPII MQC Lab			
Friday			IEM BE CR1					
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. ABG | With effect from 05-09-2022 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday				FM SE CR3	BE 2 MTX MQC Lab		MTX BE CR1	
Tuesday			FM SE CR3		BE 1 MTX MQC Lab			
Wednesday			MTX BE CR1		BE 3 MTX MQC Lab			
Thursday				FM SE CR3	BE 4 MTX MQC Lab		SE 1 & 2 FM FM LAB	
Friday			FM SE CR3		MTX BE CR1			
Saturday								

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Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. Dr.MMD With effect from 05-09-2022 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TE 2 MDI DH2				DME I TE A CR3	
Tuesday				MDI TE CR2				
Wednesday				MDI TE CR2	TE 1 MDI DH2			
Thursday							MDI TE CR2	
Friday				DME I TE A CR3			TE 3 MDI DH2	
Saturday								

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Time Table SEM I, A.Y 2022-23

Prof. FMA | With effect from 05-09-2022 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TE 3 HT HT LAB			HT TE CR2		
Tuesday					HT TE CR2		WE BE CR1	
Wednesday			SE 2 FM FM LAB		TE 2 HT HT LAB		WE BE CR1	
Thursday					HT TE CR2		WE BE CR1	
Friday						HT TE CR2	TE 1 HT HT LAB	
Saturday								

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Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof.	AAG		With effect from		05-09-2022		Room No.	
Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			TD SE CR3		AT TE CR2			
Tuesday								
Wednesday			AT TE CR2		TD SE CR3			
Thursday			TD SE CR3		AT TE CR2			
Friday			AT TE CR2		TD SE CR3			
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. ARN With effect from 05-09-2022 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday				MP III BE CR1	SE 3 MD DH1			
Tuesday			MP III BE CR1		SE 1 MD DH1		EE BE CR1	
Wednesday			SE 2 MD DH1				EE BE CR1	
Thursday				MP III BE CR1			EE BE CR1	
Friday								
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM I, A.Y 2022-23

Prof. VDS With effect from 05-09-2022 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday					SE 1 CAD CAD CAM LAB		AE TE CR2	
Tuesday					SE 1 CAD CAD CAM LAB		AE TE CR2	
Wednesday							CI SE CR2	
Thursday			AE TE CR2				SE 3 CAD CAD CAM LAB	
Friday								
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23
With effect from 20/03/2023

Class SE **Room No.**

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			SOM Prof NDD CR3	BHR Prof PLP CR3	TOM Prof AMB CR3	FM Prof ABG CR3	SE1-TOM PROF AMB SE2-WORK SHOP	
Tuesday			TOM Prof AMB CR3	MPI Prof ARN CR3	FM Prof ABG CR3	SOM Prof NDD CR3	BHR Prof PLP CR3	
Wednesday			FM Prof ABG CR3	MPI Prof ARN CR3	TOM Prof AMB CR3	BHR Prof PLP CR3	SE1-SOM PROF NDD TOM Lab SE2-TOM PROF AMB DH1	
Thursday			TOM Prof AMB CR3	SOM Prof NDD CR3	MPI Prof ARN CR3	BHR Prof PLP CR3		
Friday			MPI Prof ARN CR3	SOM Prof NDD CR3	FM Prof ABG CR3		SE1-WORK SHOP SE2-SOM PROF NDD TOM Lab	
Saturday			SOM Prof NDD CR3	TOM Prof AMB CR3	MPI Prof ARN CR3	FM Prof ABG CR3	Batches, SE 1-Roll NO 1-25 SE 2-Roll NO 26-onwords	

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Department of Mechanical Engineering

Time Table SEM II, A.Y 2022-23

Class	TE	With effect from		20-02-2023		Room No.	
Period		1	2	4	5	7	8
		10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday		MPII Prof ARN CR2	MD II DR MMD CR2	Open ELII Wind Energy Prof FMA CR2	ElecIII-MQC/Evehicle CR2/TD LAB Prof PLP/AAG		
Tuesday		ElecIII-MQC/Evehicle CR2/TD LAB Prof PLP/AAG	MD II DR MMD CR2	EL IV Robotics Dr RGP CR2	MPII Prof ARN CR2		
Wednesday		Open ELII Wind Energy Prof FMA CR2	MD II DR MMD CR2	EL IV Robotics Dr RGP CR2	MPII Prof ARN CR2		
Thursday		MPII Prof ARN CR2	MD II DR MMD CR2	Open ELII Wind Energy Prof FMA CR2	EL IV Robotics Dr RGP CR2		
Friday		ElecIII-MQC/Evehicle CR2/TD LAB Prof PLP/AAG	Open ELII WE Prof FMA CR2	TE1-Elec III Prof PLP/AAG TE2-MDII Prof FMA DH2; TE3-MPII Prof ARN IHP LAB			
Saturday		TE1 &TE2-MPII Prof ARN IHP LAB TE3-MDII Prof FMA DH2;		TE1-MDII Prof FMA DH2; TE2 & TE3-Elec III Prof PLP/AAG		Batches TE1 Roll no 1-17 TE2 Roll no 18-34 TE3 Roll no 35-Onwords	

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Class	BE		With effect from		20-02-2023		Room No.	
Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			FAS Prof AAG CR1	FAS Prof AAG CR1	NCER Prof FMA CR1			
Tuesday			NCER Prof FMA CR1	NCER Prof FMA CR1	FAS Prof AAG CR1			
Wednesday								
Thursday								
Friday								
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. ABG | With effect from 20-03-2023 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			EG B			FM CR3		
Tuesday					FM CR3	EG B		
Wednesday			FM CR3					
Thursday								
Friday					FM CR3		EG B3+B4	
Saturday			EG B			FM CR3		

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. Dr.MMD With effect from 20-02-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday				MD II TE CR2				
Tuesday				MD II TE CR2				
Wednesday				MD II TE CR2				
Thursday				MD II TE CR2				
Friday								
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. ARN With effect from 16-07-2018 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			MPII CR2					
Tuesday				MPI CR3		MPII CR2		
Wednesday				MPI CR3		MPII CR2		
Thursday			MPII CR2		MPI CR3			
Friday			MPI CR3		TE 1 +TE 2 MPII IHP Lab			
Saturday			TE 1 +TE 2 MPII IHP Lab		MPI CR3			

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. AAG With effect from 16-07-2018 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			FAS CR1			ElecIII-Evehicle TD LAB		
Tuesday			ElecIII-Evehicle TD LAB			FAS CR1		
Wednesday								
Thursday				BCME		FAS CR1		
Friday			ElecIII-Evehicle TD LAB	EG B1+ B2			EG B3+ B4	
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. AAG | With effect from 16-07-2018 | Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			FAS CR1			ElecIII-Evehicle TD LAB		
Tuesday			ElecIII-Evehicle TD LAB			FAS CR1		
Wednesday								
Thursday				BCME		FAS CR1		
Friday			ElecIII-Evehicle TD LAB	EG B1+ B2			EG B3+ B4	
Saturday								

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. NDD With effect from 17-04-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday			SOM SE CR3			EG C		
Tuesday						SOM SE CR3	EG C1+C2	
Wednesday				EG C			SOM SE1 TOM LAB	
Thursday				SOM SE CR3	EG C3+C4			
Friday				SOM SE CR3			SOM SE2 TOM LAB	
Saturday			SOM SE CR3		EG C			

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. AMB With effect from 20-03-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30		1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday					TOM SE CR3			SE1 TOM TOM LAB
Tuesday			TOM SE CR3					
Wednesday					TOM SE CR3			SE2 TOM TOM LAB
Thursday			TOM SE CR3		EG FE D CR11		FE D-D3 D4 EG DH1	
Friday			EG FE D CR11		FE D-D3 D4 EG DH1			
Saturday				TOM SE CR3		EG FE D CR11		

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Principal
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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. PLP With effect from 20-02-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday				BHR SE CR3		ElecIII-MQC TE CR2		
Tuesday			ElecIII-MQC TE CR2				BHR SE CR3	
Wednesday						BHR SE CR3		
Thursday						BHR SE CR3		
Friday			ElecIII-MQC TE CR2		TE1 MQC MQC LAB			
Saturday					TE2 & TE3 MQC MQC LAB			

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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. Dr SKU With effect from 04-04-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday								BCME FE.C CR13
Tuesday								BCME FE.D CR11
Wednesday								
Thursday								
Friday								
Saturday								

Prepared by
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Checked by
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P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. DR.RGP With effect from 20-02-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday								
Tuesday					EL IV Robotics TE CR2			
Wednesday					EL IV Robotics TE CR2			
Thursday						EL IV Robotics TE CR2		
Friday								
Saturday								

Prepared by
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Checked by
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P.E.S. College of Engineering * Mechanical Department * Aurangabad

P.E.S College of Engineering, Nagssenvana, Aurangabad
Department of Mechanical Engineering
Time Table SEM II, A.Y 2022-23

Prof. Dr.MMD With effect from 20-02-2023 Room No.

Period	1	2	3	4	5	6	7	8
	8:15-9:15	9:15-10:15	10:30-11:30	11:30-12:30	1:15-2:15	2:15-3:15	3:30-4:30	4:30-5:30
Monday				MD II TE CR2				
Tuesday				MD II TE CR2				
Wednesday				MD II TE CR2				
Thursday				MD II TE CR2				
Friday								
Saturday								

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