



JAYAWANT SHIKSHAN PRASARAK MANDAL'S
Jayawantrao Sawant College of Engineering

(Approved by AICTE, New Delhi, Govt of Maharashtra and Affiliated to University of Pune)

Id.No. : PU/PN/Engg/199/(2004)

S. No.58, Handewadi Road, Hadapsar, Pune - 411028

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Dr. Rajendra D. Kanphade

M.E. Ph.D. (Electronics Engg.)

LMISTE, FIETE, SMIEEE

Principal

Prof. Dr. T. J. Sawant
D.E.E., B.E. (Electrical), MISTE, Ph.D
FOUNDER SECRETARY

1.1 Curricular Planning and Implementation (20)

Department of Mechanical Engineering

Sr. No.	Key Aspects	Assessment Indicators	Details	Evidences
1.1.1	Curricular Planning and Implementation	The Institute ensures effective curriculum delivery through a well planned and documented process	Academic Calendar	SPPU, Institute and department Calendar
			Time table	Master Time Table
			Curriculum Enrichment Program (CEP)	CEP Schedule and activities
			Course File	Subject wise gap, Teaching plan, Laboratory plan, Assessment Plan, Theory & Experiment session plan, Moodle Contents
			Module Contents : Activities	Quiz, Game Pedagogy activities, other activity
			Planning & imteam	DAB, PAC MOM, Module Details and Module coordinator

Adherence to Academic Calendar

- Effective implementation is possible only by meticulous planning; hence department plans and executes academic activities adhering to the academic calendar.
- Department academic calendar prepared is based on the SPPU calendar and institute calendar.
- It mainly includes the various activities planned in the coming semester viz. teaching plan, guest-lectures, internal/external examination schedules, technical events, industry visit schedules, etc.
- Effective implementation of curriculum as per the academic calendar is monitored through well planned 3-tier academic set-up.
- In order to maintain adherence to the academic calendar, the extra provision in the time table is made to address the diversity of learning, compensate for lectures missed due to some unavoidable circumstances viz. change in university exams schedule, due to Pandemic, elections, natural calamity, etc. The variation in adherence is maintained at around 10%.

Adherence to academic calendar during pandemic.

- University could not maintain the regular academic schedule due to pandemic waves.
- University has to change the academic schedule in the run time, based on Covid situation.
- All the affiliated colleges followed the same as per the circulars of the University.
- Each faculty member prepares a teaching plan based on the university and college academic calendar.

Savitribai Phule Pune University
(Formerly University of Pune)



Circular No. 278 of 2021

**Revised Dates of Commencement and Conclusion of Engineering, Architecture and
Pharmacy for the Academic Year 2021-2022
For Affiliated Colleges/Recognised Institutes**

It is hereby informed that, the revised dates of commencement and conclusion of the Courses, under the faculty of Engineering, Architecture and Pharmacy for the academic year 2021-22 shall be as under :

Name of the Faculty	Name of the Courses	Year	Revised 2021 - 2022			
			First Term		Second Term	
			Commencement	Conclusion	Commencement	Conclusion
Science & Technology	Engineering	TE, BE	02/08/2021	30/11/2021	03/01/2022	26/04/2022
	B.Architecture	III, IV & V	15/06/2021	04/12/2021	03/01/2022	30/04/2022
		II	20/08/2021	10/12/2021	03/01/2022	30/04/2022
	B. Pharmacy	III & IV	17/08/2021	18/12/2021	03/01/2022	10/05/2022
		II	23/08/2021	18/12/2021	03/01/2022	10/05/2022
	M. Pharmacy	II	23/08/2021	18/12/2021	03/01/2022	15/05/2022

NOTE

1. All Programmes shall be conducted in Online Mode until further notice.
2. In view of prevailing COVID-19 situation in the Country, Colleges / Institutes shall required to follow the guidelines / instructions issued by the Government of Maharashtra from time to time.


Deputy Registrar
(P.G. Admission)

Ganeshkhind, Pune-07
Ref. No. PGS/ 3578
Date: 29/09/2021

Copy to:

The Heads of all University Departments, Savitribai Phule Pune University, Pune.
The Principals of all Affiliated Colleges, Savitribai Phule Pune University, Pune.
The Directors of all Recognized Institutes, Savitribai Phule Pune University, Pune.

Copy to: for information

The Members of the Management Council, Savitribai Phule Pune University, Pune.
The Registrar, Savitribai Phule Pune University, Pune.
The Deans of Faculties, Savitribai Phule Pune University, Pune.

JSPM's Jayawantrao Sawant College of Engineering Hadapsar Academic Calendar (2021-22)

A.Y. :- 2021-22 Sem-I

JSPM's
Jayawantrao Sawant College of Engineering Hadapsar
DEPARTMENT OF MECHANICAL ENGINEERING
Academic Calendar (AY 2021-22/SEM-I)

Week	June - 21	July - 21	August - 21	September - 21	October - 21	November - 21	December - 21
1			Sat (04th)	Regular academics of SE, TE, BE			Internal End Term Examination 2021-22 Sem-I (SE, BE) (TENTATIVE)
2	SPPU-Oral practical Exam SEM-II		Sunday	Display of defuncter students list	Gandhi Jayanti-Holiday	Display of defuncter students list	
3				Sat (05th)			
4			Pre Sem Activity - CEP (SE, TE & BE), 19th July to 07th August 2021	Sunday		Diwali Holiday (11th & 12th NOV. 2021)	Sat (06th)
5	Sat (06th)				Internal End Term Examination 2021-22 Sem-I (BE) (TENTATIVE)		Sunday
6	Sunday			BE Project Poster Presentation			Coordination of Teaching (SE & BE)
7			Sat (07th)				
8	SPPU - Oral practical Exam sem-II		Sat (08th)	BE Project Stage I Presentation	BE/TE/BE Project Poster Presentation		
9			Sunday				
10				Sat (09th)		Regular academics of SE, TE, BE	
11				Sunday			
12				Pre Sem Activity: Parents Meet (17th)			Sunday
13					Regular academics of SE, TE, BE		
14			Sat (10th)	Pre Sem Activity: Parents Meet (17th)			Internal End Term Examination 2021-22 Sem-I (SE, TE) (TENTATIVE)
15			Regular academics of SE, TE, BE	Internal Mid Term Examination 2021-22 Sem-I (SE, TE) (TENTATIVE)			
16			Regular academics of SE, TE, BE				
17			Sunday			Regular academics of SE, TE, BE	
18							Sat (11th)
19	Sat (11th)		Regular academics of SE, TE, BE				Sunday
20					Regular academics of SE, TE, BE		Coordination of Teaching (SE)
21		Pre Sem Activity - CEP (SE, TE & BE), 19th July to 07th August 2021					
22				Regular academics of SE, TE, BE			
23							
24	Report of Continuous Assessment and attainment sheets of 19-20 SEM-II subjects		Regular academics of SE, TE, BE		Regular academics of SE, TE, BE	SPPU Intern Examination 2021-22 Sem-I SE, TE, BE (Tentative)	Report of Continuous Assessment and attainment sheets of 19-20 SEM-II subjects
25							
26							
27		Pre Sem Activity - CEP (SE, TE & BE), 19th July to 07th August 2021	BE Project Topics Registration session		Regular academics of SE, TE, BE		End of teaching
28				Regular academics of SE, TE, BE			
29							
30			Regular academics of SE, TE, BE	Display Result of Internal Test-II	Regular academics of SE, TE, BE	Internal End Term Examination 2021-22 Sem-I (SE, BE) (TENTATIVE)	Pre Sem Activity: Parents Meet (SE & BE)
31							

Note:

- Conduct Unit Test on Every Unit in Coordination with CC and HOD
- All type material should be applied on boards before start of Unit
- Manage session of any lagging in theory and Practical
- In above schedule may be change as per updated guidelines received from SPPU
- May be Changes in Holidays as per decision by Corporate Office


Dr. P. G. Kadam
AMC Coordinator


Dr. P. A. Patil
HOD - Mech. Engg.
Professor & Head
In Mech. Engg. Department
JSPM's Jayawantrao Sawant College of Engineering




Dr. S. M. Hanburde
Dean, Academics


Dr. R. D. Keshade
Principal
JSPM's Jayawantrao Sawant
College of Engineering, Hadapsar

JSPMS Jaywantrao Sawant College of Engineering Hadapsar							
Mechanical Engineering Department							
Load Distribution/ A Y 2021-22 Sem I							
	Name of Staff	Class & Div	Name of Subject	Th + Pract	Total Th + Pract	Project (BE)	Total load / Week
1	Dr. Phadkule Suneeta Vivek	ME [DE]	RM	4 + 0	4	5	9
2	Dr. Pradeep Patil	BE A B C	ELE I HVAC & R	3+6	9	5	14
3	Dr. Prakash Kadam	SE C	EMM	3+0	6	5	11
		BE A	DOM	3+0			
4	Dr. Abhijeet Dandawate	SE B	EMM	3+2	8	5	13
		BE A B C	ELE II AE	3+0			
5	Mahesh Gaikwad	TE A	DME	3+6	9	5	14
6	Pradnya Kosbe	TE C	DME	3+6	9	5	14
7	Laxman Mane	BE A B C	ELE II EAM	3+0	12	5	17
		TE C	HMT	3+6			
8	Manisha Nafawade	TE A	MECHX	3+6	12	5	17
		BE A B C	ELE II OR	3+0			
9	Sandeep Patil	TE A	DML	0+6	15	5	20
		SE A	EMM	3+6			
10	Shivanand Talwar	BE A	H & P	3+6	15	5	20
		TE A	SD	0+6			
11	Suhas Shinde	BE A	CAD/CAM	3+6	12	5	17
		BE C	CAD/CAM	3+0			
12	Rakesh Siddheshwar	TE B	HMT	3+6	15	5	20
		SE A	GD & T	0+6			

JSPMS Jaywantrao Sawant College of Engineering Hadapsar							
Mechanical Engineering Department							
Load Distribution/ A Y 2021-22 Sem I							
	Name of Staff	Class & Div	Name of Subject	Th + Pract	Total Th + Pract	Project (BE)	Total load / Week
13	Paramveer Patil	TE A	HMT	3+6	15	5	20
		SE B	GD & T	0+6			
14	Chitaranjan Mane	SE C	ET	3+6	15	5	20
		SE C	GD & T	0+6			
15	Suvarna Pawar	TE A	NSM	3+6	15	5	20
		TE B	SD	0+6			
16	Fayaz Kharadi	TE A	ELE I MST	3+0	12	5	17
		SE C	SMD	3+6			
17	Suchitra Dhanawade	TE B	ELE I MST	3+0	15	5	20
		TE C	ELE I MST	3+0			
		SE B	SMD	3+6			
18	Siddesh Bandekar	BE A B C	ELE I FEA	3+6	19	5	24
		BE A B C	DOM	4+6			
19	Aditya Bawane	SE A	ET	3+6	9	5	14
20	Vijaya Narsu Awati	BE C	H & P	3+6	9	5	14
21	Dr. Nilesh Alone	BE C	DOM	4+6	9	5	14
22	Shekhar Gulwade	BE B	H & P	3+6	9	5	14
23	Mahesh Shinde	TE B	MECHX	3+6	9	5	14
24	Amol Parshuram Yadav	TE C	NSM	3+6	15	5	20
25	Namrata Rananaware	SE B	ET	3+6	9	5	14

JSPMS Jaywantrao Sawant College of Engineering Hadapsar							
Mechanical Engineering Department							
Load Distribution/ A Y 2021-22 Sem I							
	Name of Staff	Class & Div	Name of Subject	Th + Pract	Total Th + Pract	Project (BE)	Total load / Week
26	MADHURI HATWATE	SE A	SMD	3+6	9	5	14
27	VIJAY KHARADE	SE A	SM	3+6	9	5	14
28	Prof.Amruta Ranaware	SE B	SM	3+6	9	5	14
29	Prof.Ganesh Lamdhade	TE C	MECHX	3+6	9	5	14
30	Prof.Pooja B Patil	TE C	SD	0+6	15	5	20
		SE C	SM	3+6			
31	Prof.Akshay S Ajankar	BE B	CAD/CAM	3+6	15	5	20
		BE C	CAD/CAM	0+6			
32	Dr. Jahier Abbas Shaikh	TE B	NSM	3+6	15	5	20
		TE C	DML	0+6			
33	Prof.Kelkar Satej Sudhakar	TE B	DME	3+6	15	5	20
		TE B	DML	0+6			



Dr. P. A. Patil

Head of Department

(Signature)
Professor & Head

In Mech. Enng. Department
JSPM's Jaywantrao Sawant College of Engineering
Hadapsar, Pune- 411 028

Module coordinator details of All department

JSPM's Engineering Institutes

AY 2021-22, Sem-I

Details of Modules of 1st Semester

Imp Instruction : Pl read all the common instructions given in 1st sheet here, before filling the info of module.

Imp Instruction : To keep uniformity, the HoDs of BSIOTR, BSCOER and NTC are requested to add 4th module of Allied Engineering.

Name of Institute & Campus : JSCO E

Department : Mech Engg

Name of HoD : DR. P. A. Patil

Whatsapp Mob No of HoD : _____

Sr. No	Name of Module	Name of Module Coordinator	Whatsapp Mob No of Module Coordinator	Names of 1st sem subjects under this module (write full name)	SEMESTER	Class (FE/SE/TE/BE)	Remarks
1	Design Engineering	Prof. Suhas Shinde	9960354957	Solid Mechanics		SE (2019)	
				Solid Modeling and Drafting		SE (2019)	
				Geometric Dimensioning and Tolerancing Lab		SE (2019)	
				Design of Machine Elements		TE(2019)	
				Dynamics of Machinery		BE(2015)	
2	Thermal & Fluid Engineering	Prof Laxman Mane		Engineering Mathematics-I		FE (2019)	
				Engineering Physics		FE (2019)	
				Systems in Mechanical Engineering		FE (2019)	
				Engineering Thermodynamics		SE (2019)	
				Heat and Mass transfer		TE (2019)	
				Hydraulics and Pneumatics		BE (2015)	
				HVAC & R		BE (2015)	
3	Manufacturing Engineering	Dr. Prakash Kadam	9823204824	Engineering Physics		FE - Sem-I (2019)	
				Systems in Mechanical Engineering		FE - Sem-I (2019)	
				Workshop		FE - Sem-I (2019)	
				Engineering Mathematics - III		SE - Sem-I (2019)	
				Engineering Materials and Metallurgy		SE - Sem-I (2019)	
				Geometric Dimensioning and Tolerancing Lab		SE - Sem-I (2019)	
				Advances in Production Technology		TE - Sem-I (2019)	
				Digital Manufacturing Laboratory		TE - Sem-I (2019)	
				CAD CAM Automation		BE - Sem-I (2015)	
				Automation		BE Elective II- Sem-I (2015)	
4	Allied Engineering	Prof. Manisha Nalawade		Solid Modeling and Drafting		SE(2019)	
				Electrical and Electronics Engineering		SE(2019)	
				numerical and Statistical Methods		TE(2019)	
				Mechatronics		TE (2019)	
				CAD CAM Automation		BE (2015)	
				Finite Element Analysis		BE (2015)	



JSPM's
JayawantraoSawant College of Engineering, Hadapsar. Pune-28
Department of Mechanical Engineering
Curriculum Enrichment Program for 2021-22Sem-I

GAP AnalysisWith Program Objectives for CEP

INTRODUCTION:

OBE (Outcome Based Education) is the key aspect for educational institutes in this era of globalization. While studying and at the time of passing out from the institute what the students have achieved (Knowledge, Awareness, Ethics, Moral, etc.) is the main point of concern. Central government of India has specified 12 attributes, a graduate engineer should possess and in OBE, quality of education or gain of the students is quantified in terms of attainment of these attributes.

In view of OBE; mere completion of syllabi as stipulated by the University will not be enough to fulfill the needs of OBE and hence to give justice to syllabi as well as the OBE, it is required to frame the curriculum in such a way that, while sticking to University syllabus still efforts are made to attain the more and more attributes to the best possible level. Therefore in view of this goal, this Curriculum Enrichment Program has been organized by the institute to frame out the curriculum for semester-I subjects of Academic Year 2021-22 where efforts will be made to design activities in such a way as to help attain the attributes at best possible level

PROGRAMME OBJECTIVES:

The participants through this CEP should:

- SPPU CO-PO mapping, CO formation, CO-PO-PSO mapping.
- Attainment Levels and Actions for improvement
- Develop an appreciation of case method in teaching and learning in Mechanical Engineering.
- Become aware of background preparation required to become successful case teachers;
- Get motivated to use case method of teaching in appropriate learning contexts.
- To design ICT based teaching learning material to be collecting and develop and also prepare academic plan subject wise.

JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING												
DEPARTMENT OF MECHANICAL ENGINEERING												
Curriculum Enrichment Program												
Academic Year 2021-22, Sem. I												
Week I (July 12-17, 2021) Activity Report (Unit I & II)												
	Sr. No	Tasks									Status of the Tasks	
	1	Syllabus of Unit									Y	Completed
	2	Applicable picture, depicting content of unit									N	Incomplet
	3	Self-Video Lectures as per content (Min. 5 video)									NA	Not Applicable
	4	Notes as per syllabus (Flipbooks/Typed/handwritten)										
	5	Activity 1:- Simple Quiz										
	6	Activity 2:- Game Pedagogy -I										
	7	Activity 3:- Image related Quiz (Addressing BL4)										
	8	Activity 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content										
9	Theory Question Bank											
Sr. No.	Subject	Subject Teacher	1	2	3	4	5	6	7	8	9	
1	SM	VGK	N	N	N	N	N	N	N	N	N	
2	SMD	MVH	Y	Y	N	Y	Y	Y	N	N	N	
3	ET	ASB	Y	Y	Y	Y	Y	Y	N	Y	N	
		NDR	Y	Y	Y	Y	N	N	N	N	N	
		CCM	Y	Y	Y	Y	N	N	N	N	N	
3	EMM	ALD	N	N	N	N	N	N	N	N	N	
		SBP	Y	Y	Y	Y	N	N	N	N	N	
4	EEE	SVG	N	N	Y	Y	Y	Y	Y	Y	Y	
5	DME	MKG	Y	Y	N	N	N	N	N	N	N	
		PEK	Y	Y	N	N	N	N	N	N	N	
6	MECHX	MAN	Y	Y	Y	Y	Y	Y	Y	Y	Y	
		MCS	Y	Y	Y	Y	Y	Y	N	Y	Y	
7	HMT	PNP	N	N	N	N	N	Y	Y	Y	Y	
		LNM	Y	Y	Y	Y	N	N	N	N	N	
		RKS	Y	Y	Y	Y	Y	Y	Y	Y	Y	
8	ELE-I APT	SAD	Y	Y	Y	Y	Y	Y	Y	Y	Y	
		FHK	Y	Y	Y	Y	Y	Y	Y	Y	N	
9	NSM	SPP	Y	Y	Y	Y	Y	Y	Y	Y	N	
		APY	Y	Y	Y	Y	N	N	N	N	N	
10	DML	FHK	N	N	N	Y	Y	N	N	N	N	
		SAD	N	N	N	N	N	N	N	N	N	
11	H & P	SRG	Y	Y	Y	N	N	N	N	N	N	
		SST	Y	Y	Y	Y	Y	Y	Y	Y	Y	
		VNA	Y	Y	N	Y	Y	Y	Y	Y	Y	
12	CAD/CAM	SMS	Y	Y	N	Y	Y	Y	Y	Y	Y	
13	DOM	SCB	Y	Y	N	Y	Y	N	N	N	N	
		NUA	Y	Y	N	Y	Y	Y	Y	Y	N	
		PGK	Y	Y	Y	Y	Y	Y	Y	Y	N	
14	Elect-I (FEA)	SCB	N	N	N	Y	Y	Y	Y	Y	Y	
15	Elect-I (HVAC)	PAP	Y	Y	N	N	N	N	N	N	N	
16	Elect-II (AUTOMOT)	ALD	Y	Y	Y	Y	Y	Y	Y	Y	Y	
17	Elect-II (EAM)	LNM	Y	Y	N	Y	N	N	N	N	Y	
18	Elect-II (OR)	MAN	Y	Y	N	Y	Y	N	N	N	N	

JSPM's Jaywantrao Sawant College of Engineering
 Hadapsar, Pune-28.
 BAJU TEAM
Professor & Head
 In Mech. Engg. Department
 JSPM's Jaywantrao Sawant College of Engineering
 Hadapsar, Pune- 411 028

P. Tate
PRINCIPAL
 J.S.P.M.'S Jaywantrao Sawant
 College of Engg.
 Hadapsar, Pune-28

JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
Curriculum Enrichment Program
Academic Year 2021-22, Sem. I
Week 2 (July 19-24, 2021) Activity Report (Unit III & IV)

Sr. No	Tasks	Status of the Tasks	
		Y	Completed
1	Syllabus of Unit	N	Incompet
2	Applicable picture, depicting content of unit	NA	Not Applicable
3	Self-Video Lectures as per content (Min.5 video)		
4	Notes as per syllabus (Flipbooks/Typed/handwritten)		
5	Activity 1:- Simple Quiz		
6	Activity 2:- Game Pedagogy -I		
7	Activity 3:- Image related Quiz (Addressing BL4)		
8	Activity 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content		
9	Theory Question Bank		

Sr. No.	Subject	Subject Teacher	Tasks									
			1	2	3	4	5	6	7	8	9	
1	SM	VGK	N	N	N	Y	N	N	N	N	N	Y
2	SMD	MVH	N	N	N	N	N	N	N	N	N	N
3	ET	ASB	N	N	N	N	N	N	N	N	N	N
		NDR	N	N	N	N	N	N	N	N	N	N
		CCM	N	N	N	N	N	N	N	N	N	N
3	EMM	ALD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		SBP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	EEE	SVG	N	N	Y	N	N	N	N	N	N	N
5	DME	MKG	N	N	N	N	N	N	N	N	N	N
		PEK	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
6	MECHX	MAN	Y	Y	N	Y	N	N	N	N	N	Y
		MCS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	HMT	PNP	Y	Y	N	Y	Y	Y	Y	Y	Y	N
		LNM	Y	Y	N	Y	Y	Y	N	Y	Y	N
		RKS	Y	Y	N	Y	Y	Y	Y	Y	Y	N
8	ELE-I APT	SAD	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
		FHK	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
9	NSM	SPP	N	N	N	Y	N	N	N	N	N	N
		APY	N	N	N	N	N	N	N	N	N	N
10	DML	FHK	N	N	N	N	N	N	N	N	N	N
		SAD	N	N	N	N	N	N	N	N	N	N
11	H & P	SRG	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
		SST	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		VNA	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
12	CAD/CAM	SMS	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
13	DOM	SCB	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		NJA	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
		PGK	N	N	N	N	N	N	N	N	N	N
14	Elect-I (FEA)	SCB	N	N	Y	Y	Y	Y	Y	Y	Y	Y
15	Elect-I (HVAC)	PAP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Elect-II (AUTOCAD)	ALD	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
	Elect-II (EAM)	LNM	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Elect-II (OR)	MAN	N	N	N	N	N	N	N	N	N	N


 Head of Department

J.P.M.'s Jayawant Rao Sawant College of Engineering
 Hadapsar, Pune
 S. E. M. T. (A) B.A.U. (E) T. (A) M.


 Prof. Anil Kumar
 Head of Department
 J.P.M.'s Jayawant Rao Sawant College of Engineering

J.P.M.'s Jayawant Rao Sawant
 College of Engineering
PRINCIPAL

JAYAWANTAO SAWANT COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
Curriculum Enrichment Program
Academic Year 2021-22, Sem. I

Week 3 (July 26-31, 2021) Activity Report (Unit v & vi)

Sr. No	Tasks	Status of the Tasks	
1	Syllabus of Unit	Y	Completed
2	Applicable picture, depicting content of unit	N	Incomplete
3	Self-Video Lectures as per content (Min.5 video)	NA	Not Applicable
4	Notes as per syllabus (Flipbooks/Typed/handwritten)		
5	Activity 1- Simple Quiz		
6	Activity 2- Game Pedagogy-I		
7	Activity 3- Image related Quiz (Addressing BL4)		
8	Activity 4- Numerical Quiz/ Game Pedagogy-II/HSP Interactive content		
9	Theory Question Bank		

Sr. No.	Subject	Teacher	Tasks									
			1	2	3	4	5	6	7	8	9	
1	SM	VGK	N	N	N	Y	Y	N	N	N	N	N
2	SMD	MVH	N	N	N	N	N	N	N	N	N	N
3	ET	ASB	N	N	N	Y	N	N	N	N	N	N
		NDR	N	N	N	N	N	N	N	N	N	N
		CCM	Y	Y	N	Y	N	N	N	N	N	N
3	EMM	ALD	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		SBP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		PGK	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	EEE	SVG	N	N	Y	N	N	N	N	N	N	N
5	DME	MKG	N	N	N	N	N	N	N	N	N	N
		PEK	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
6	MECHX	MAN	N	N	N	N	N	N	N	N	N	N
		MCS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	HMT	PNP	Y	Y	N	Y	Y	Y	Y	N	N	N
		LNM	Y	Y	N	Y	Y	Y	Y	Y	Y	N
		RKS	Y	Y	N	Y	Y	Y	Y	Y	Y	N
8	ELE-I/APT	SAD	N	N	N	N	N	N	N	N	N	N
		FHK	Y	N	Y	Y	Y	N	N	N	N	Y
9	NSM	SPP	N	N	N	N	N	N	N	N	N	N
		APY	N	N	N	N	N	N	N	N	N	N
10	DML	FHK	N	N	N	N	N	N	N	N	N	N
		SAD	N	N	N	N	N	N	N	N	N	N
11	H & P	SRG	N	N	N	N	N	N	N	N	N	N
		SST	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		VNA	N	N	N	N	N	N	N	N	N	N
12	CAD/CAM	SMS	N	Y	N	Y	Y	Y	Y	Y	Y	Y
13	DOM	SCB	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		NUA	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
		PGK	Y	Y	N	N	N	N	N	N	N	N
14	Elect-I (FEA)	SCB	N	N	N	N	N	N	N	N	N	N
15	Elect-I (HVAC)	PAP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
16	Elect-II (AUTOMO)	ALD	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
17	Elect-II (EAM)	LNM	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18	Elect-II (OR)	MAN	N	N	N	N	N	N	N	N	N	N

JSPM's Jaywantao Sawant College of Engineering Hadapsar, Pune-28
SR. ENRICHMENT TEAM

JSPM's Jaywantao Sawant College of Engineering Hadapsar, Pune-28
SR. ENRICHMENT TEAM

PRINCIPAL
J.S.P.M.'S Jaywantao Sawant
College of Engg.
Hadapsar, Pune-28

JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
Curriculum Enrichment Program
Academic Year 2021-22, Sem. I
Week 4 (Aug 02-07, 2021) Activity Report (Experiments)


Sr. No	Tasks
1	Experiment videos out of 8
2	Experiment quiz available out of 8

Status of the Tasks	
Y	Completed
N	Incomplet
NA	Not Applicable

Sr. No.	Subject	Subject Teacher	Tasks	
			1	2
1	SM	VGK	N	N
2	SMD	MVH	N	N
3	ET	ASB	N	N
		NDR	N	N
		CCM	N	N
3	EMM	ALD	Y	Y
		PGK	Y	Y
		SBP	Y	Y
4	EEE	SVG	N	N
5	DME	MKG	N	N
		PEK	Y	N
6	MECHX	MAN	N	N
		MCS	Y	Y
7	HMT	PNP	N	N
		LNM	Y	Y
		RKS	N	N
8	ELE-I APT	SAD	NA	NA
		FHK	NA	NA
9	NSM	SPP	N	N
		APY	N	N
10	DML	FHK	N	N
		SAD	N	N
11	H & P	SRG	Y	Y
		SST	Y	Y
		VNA	N	N
12	CAD/CAM	SMS	N	N
13	DOM	SCB	Y	Y
		NUA	Y	Y
		PGK	Y	Y
14	Elect-I (FEA)	SCB	Y	Y
15	Elect-I (HVAC)	PAP	Y	Y
16	Elect-I (AUTOMOT)	ALD	NA	NA
17	Elect-II (EAM)	LNM	NA	NA
18	Elect-II (OR)	MAN	NA	NA

JSPM's Jayawanttrao Sawant
 Engineering & Management
 College of Engineering
 Hadapsar, Pune-411028


Professor & Head
 Mechanical Engineering Department
 JSPM's Jayawanttrao Sawant College of Engineering
 Hadapsar, Pune-411028



PRINCIPAL
 J.S.P.M.'S Jayawanttrao S
 College of Engg.
 Hadapsar, Pune-411028

JSPM's
JayawantraoSawant College of Engineering, Hadapsar. Pune-28
Department of Mechanical Engineering
Curriculum Enrichment Program for 2021-22 Sem-I courses
Program Schedule

Date	Week	Particulars
July 12-17, 2021	Week 1	Syllabus of Unit 1 & 2 Applicable picture, depicting content of unit Self-Video Lectures as per content (Min.5 video) Notes as per syllabus (Flipbooks/Typed/handwritten) Activity 1:- Simple Quiz Activity 2:- Game Pedagogy -I Activity 3:- Image related Quiz (Addressing BL4) Activiy 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content Theory Question Bank
July 12-17, 2021	Week 2	Syllabus of Unit 3 & 4 Applicable picture, depicting content of unit Self-Video Lectures as per content (Min.5 video) Notes as per syllabus (Flipbooks/Typed/handwritten) Activity 1:- Simple Quiz Activity 2:- Game Pedagogy -I Activity 3:- Image related Quiz (Addressing BL4) Activiy 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content Theory Question Bank
July 26-31, 2021	Week 3	Syllabus of Unit 5 & 6 Applicable picture, depicting content of unit Self-Video Lectures as per content (Min.5 video) Notes as per syllabus (Flipbooks/Typed/handwritten) Activity 1:- Simple Quiz Activity 2:- Game Pedagogy -I Activity 3:- Image related Quiz (Addressing BL4) Activiy 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content Theory Question Bank
Aug 02-07, 2021	Week 4	Experiment videos out of 8 Experiment quiz available out of 8

JSPM's Jaywant:ao Sawant College Of
 Engineering Hadapsar, Pune-28.
 S/ENR/IA BAJA TEAM


 Professor (Faculty Advisor)
 (H.C. in Mech. Engg. Department)
 JSPM's Jaywantrao Sawant College of Engineering
 Hadapsar, Pune-411028


 PRINCIPAL
 J.S.P.M.'S Jaywantrao Sawant
 College of Engg.
 Hadapsar, Pune-28

Chief Patron

Hon'ble Shri. T. J. Sawant

Founder Secretary

Jayawant Shikshan Prasarak Mandal, Pune

Patron

Dr. M. G. Jadhav

Campus Assistant Director, JSPM's JSCOE,
Hadapsar

Prof. Sanjay Sawant

Assit. Campus Director, JSCOE, Hadapsar

Organizing Chairman

Prof. Dr. R. D. Kanphade

Principal, JSPM's, JSCOE, Hadapsar, Pune-411028.

FDP Secretary

Prof. Suneeta Phadkule

HOD, Mechanical Engineering

Email: suneetaphadkule@yahoo.co.in

Contact No: +919422538856

CDP Convener

Prof. Dr. Pradeep A. Patil

HOD [MECH], Contact No: +919765542844

Advisory Committee

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Prof. Anil Bhosale, Deputy Director Academics

Prof. Hemant Joshi- ARQAC Member.

Dr. Nitin Khardekar- ARQAC Member.

Organizing Committee

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Prof. Dr. Prakash Kadam 98232 04824

Satej Kelkar 98220 29364

Mahesh Gaikwad 98222 80955

Pradnya Kosbe 94219 58594

Laxman Mane 99227 47745

Ulhas Malwade 99755 63891

Suvarna Ghadge 98227 39598

Amol Kokare 94218 66313

Manisha Nalawade 94238 04029

About The JSPM

Jayawant Shikshan Prasarak Mandal was set up in 1948 under able & dynamic leadership of Prof. T. J. Sawant with an objective of providing quality education in fields of Engineering, Management, Computer Applications, Pharmacy, Education & Basic School education from Kinder Garden onwards. In short "Quality Education from KG to P.G." There are 55 institutes under the aegis of JSPM offering full fledged school education, Diploma, Graduation, Post graduation in various branches of Engineering & Management, at five educational campuses ideally located in various parts of Pune city in picturesque environment conducive for better & effective Teaching - Learning process.

About Jayawantrao Sawant College of Engineering

Jayawantrao Sawant College of Engineering, since its establishment in 2004 is involved in practicing various teaching learning methodologies of excellence to deliver quality engineering education to students coming from all corners of the country. The institute is located at Hadapsar (Pune) surrounded by industries, IT companies & reputed townships. The excellent academic calendar with space for individual skills and personality development, excellent team work of faculty members & initiative for industry interface are salient features of the college.

About Savitribai Phule Pune University

Savitribai Phule Pune University (SPPU) formerly University of Pune, called as the Oxford of East, is one of the leading Universities in India. The National Assessment and Accreditation Council has given five star rating and UGC has identified SPPU as the "University with Potential for Excellence (UPE)". SPPU is one of the largest in world with more than five lakh students studying in 58 Post graduate departments, research centres and more than 800 affiliated colleges. SPPU supports R&D activities undertaken by affiliated colleges to a great extent. The atmosphere in Pune is quite pleasant to stay during winter season. It is well connected by all means to all corners of the country.

E-mail Address for Communication

jscomechanical@gmail.com

Organized by

Dept of Mechanical Engineering

Contact: (020)-26970886

www.jspm.edu.in



JSPM's

JAYAWANTRAO SAWANT COLLEGE
OF ENGINEERING
Hadapsar, Pune - 411028

Announces



A

4 Week Curriculum Enrichment
Program

On

Curriculum Design for Semester-I
Subjects

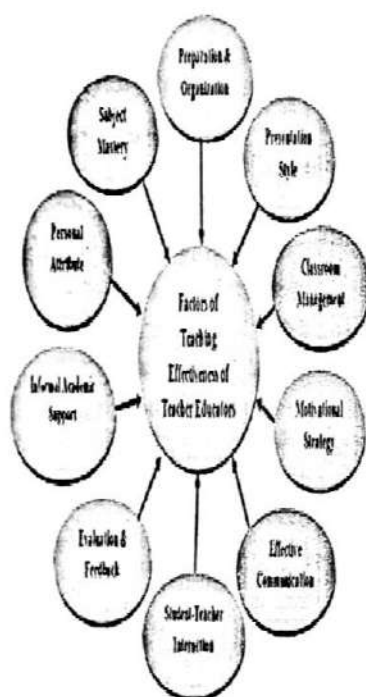
12th July. to 07th Aug. 2021

Sponsored by



JSPM Pune

About FDP



OBE (Outcome Based Education) is the key aspect for educational institutes in this era of globalization. While studying and at the time of passing out from the institute what the students have achieved (Knowledge, Awareness, Ethics, Moral, etc.) is the main point of concern.

Central government of India has specified 12 attributes, a graduate engineer should possess and in OBE, quality of education or gain of the students is quantified in terms of attainment of these attributes.

In view of OBE; mere completion of syllabi as stipulated by the University will not be enough to fulfill the needs of OBE and hence to give justice to syllabi as well as the OBE, it is required to frame the curriculum in such a way that, while sticking to University syllabus still efforts are made to attain the more and more attributes to the best possible level. Therefore in view of this goal, this Faculty Development Program has been organized by the institute to frame out the curriculum for semester-I subjects of Academic Year 2021-22 where efforts will be made to design activities in such a way as to help attain the attributes at best possible level

Date	Week	Particulars
July 12-17, 2021	Week 1	Syllabus of Unit 1 & 2 Applicable picture, depicting content of unit Self-Video Lectures as per content (Min.5 video Notes as per syllabus (Flipbooks/Typed/handwritten) Activity 1:- Simple Quiz Activity 2:- Game Pedagogy -I Activity 3:- Image related Quiz (Addressing BL4) Activity 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content Theory Question Bank
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Aug 02-07, 2021	Week 4	Experiment videos out of 8 Experiment quiz available out of 8

JSPM's
JayawantraoSawant College of Engineering, Hadapsar. Pune-28
Department of Mechanical Engineering
Curriculum Enrichment Program for 2021-22Sem-I
CEP COMMITTEE DETAILS

Chief Patron

Hon'bleShri. T. J. Sawant
Founder Secretary
JayawantShikshanPrasarakMandal,Pune

Patron

Dr. M. G. Jadhav
CampusAssistant Director, JSPM's JSCOE, Hadapsar
Prof. Sanjay Sawant
Assit. Campus Director, JSCOE, Hadapsar

Organizing Chairman

Prof. Dr. R. D. Kanphade
Principal, JSPM's, JSCOE, Hadapsar, Pune-411028.

FDP Secretary

Prof. SuneetaPhadkule
HOD, Mechanical Engineering
Email: suneetaphadkule@yahoo.co.in Contact No: +919422538856

FDP Convener

Prof. Dr. Pradeep A. Patil
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Prof. Dr. Nilesh Alone9881933885
SatejKelkar 98220 29364
Mahesh Gaikwad 98222 80955
PradnyaKosbe 94219 58594
Laxman Mane 99227 47745
UlhasMalwade 99755 63891
SuvarnaGhadge 98227 39598
AmolKokare 94218 66313
ManishaNalawade 94238 04029

Gmail - CEP 2021 Certificate

M Gmail

NileshAlone<alonenilesh@gmail.com>

CEP2021Certificate

1 message

papatil73@gmail.com<papatil73@gmail.com>

Alonenilesh<alonenilesh@gmail.com>

Mon, Aug 9, 2021 at 12:59 PM To

To,
Prof. Nilesh Alone Assistant P
rofessor

Certificate of Participation

Dear Sir/Madam;

I sincerely appreciate the quantum you devote while enriching curricula and planned strategies for achieving our academic goals. I appreciate the efforts you dedicated to get the task completed on time during "**Four Week Curriculum Enrichment Program**" (July 12- Aug 08, 2020) of **Department of Mechanical Engineering, JSPM's Jaywantrao Sawant College of Engineering, Hadapsar, Pune-411028.**

Subject: DOM Role: Subject Teacher

Thanking you

Prof. Pradeep Anandrao Patil

Professor & Head in Mechanical Engineering Department

Vision: To be recognized as a center of education for aspiring mechanical engineers catering to ever-changing needs of industry and society.

Jaywantrao Sawant College of Engineering, Pune, Maharashtra, India



JAYAWANT SHIKSHAN PRASARAK MANDAL'S
Jayawantrao Sawant College of Engineering
(Approved by AICTE, New Delhi, Govt of Maharashtra and Affiliated to University of Pune)



Prof. Dr. T. J. Sawant
D.E.E., B.E. (Electrical), MISTE, Ph.D.
FOUNDER SECRETARY

S. No. 58, Handewadi Road, Hadapsar, Pune - 411028
Id. No. : PU/PN/Engg/199/(2004)
Ph. : 8484897374 Telefax : 020-26970880
Email : principal@jspmjscoe.edu.in
Website : www.jspmjscoe.edu.in

Dr. Rajendra D. Kanphade
M.E. Ph.D. (Electronics Engg.)
LMISTE, FIETE, SMIEEE
Principal

Ref. No: JSCOE / MECH / THANKS/21-22/

Date: 8/08/2021

To,

Dr. R.D. Kanphade
Principal,
J.S.C.O.E., Hadapsar,
Pune- 411028.

Subject: Letter of Gratitude

Dear Sir,

Thank you very much for accepting our invitation and taking time out of your busy schedule. Your valuable suggestions and inputs will help us to shape our carrier in the same domain.

It has been a pleasure with your company, and we look forward to have better future educational endeavors.

Thanking you.
Yours Sincerely,

Dr. P. A. Patil
HOD Mech. Dept.
JSPM's JSCOE, Pune-28

JSPM's

Jayawantrao Sawant College of Engineering, Hadapsar. Pune-28
Department of Mechanical Engineering
Curriculum Enrichment Program for 2021-22 Sem-I

Inauguration Function Report

Curriculum Enrichment Program in JSPM's JSCOE Mechanical Engineering Department was inaugurated with the online meeting by the HOD Dr. P. A. Patil in presence of and all the staff members on 12/07/2021. The CEP aims to prepare all the documents related to all the subjects of Mechanical Engineering for academic year 2021-2022 (SEM-I) right from Gap Analysis to Assessment tool. The Program also intends to develop quality learning material for each subject.

JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING											
DEPARTMENT OF MECHANICAL ENGINEERING											
Curriculum Enrichment Program											
Academic Year 2021-22, Sem. II											
Jan 09-10, 2022 Activity Report (Unit IV)											
Sr. No	Tasks										Status of the Tasks
1	Syllabus of Unit										Y Completed
2	Applicable picture, depicting content of unit										N Incomplete
3	Self-Video Lectures as per content (Min.5 video)										NA Not Applicable
4	Notes as per syllabus (Flipbooks/Typed/handwritten)										
5	Activity 1:- Simple Quiz										
6	Activity 2:- Game Pedagogy -I										
7	Activity 3:- Image related Quiz (Addressing BL4)										
8	Activity 4:- Numerical Quiz/ Game Pedagogy -II/HSP Interactive content										
9	Theory Question Bank										
Sr. No.	Subject	Subject Teacher	Tasks								
			1	2	3	4	5	6	7	8	9
1	EN III	MMR	Y	Y	N	Y	Y	Y	Y	Y	Y
2	KoM	NJA	Y	Y	Y	Y	Y	Y	N	N	Y
		SAD	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	AT	ASB	Y	Y	Y	Y	Y	Y	Y	N	Y
		NDR	Will import data from SE Div A								
4	FM	PAP	Y	Y	Y	Y	Y	Y	Y	N	Y
		VGK	Y	Y	Y	Y	Y	Y	Y	N	Y
		LNM	Y	Y	Y	Y	Y	Y	Y	N	Y
5	MP	ALD	Will import data from SE-Div B								
		APY	Y	Y	N	N	Y	N	N	N	Y
6	AIML	SPP	Will import data from TE-Div B								
		MCS	Y	N	N	Y	N	Y	N	N	N
		FHK	Will import data from TE-Div B								
7	CAE	MAN	Y	Y	N	N	N	N	N	N	N
		APR	Y	Y	N	Y	Y	Y	N	Y	Y
8	DTS	PEK	Y	N	N	Y	Y	Y	N	N	N
		MIK	Y	Y	N	N	Y	Y	Y	N	N
9	ELE II	SBP	Y	Y	N	Y	Y	Y	Y	N	Y
10	EE	SRG	Y	Y	N	Y	Y	Y	Y	N	Y
		SST	Y	Y	Y	Y	Y	Y	Y	N	Y
		PNP	Y	Y	N	Y	Y	Y	Y	N	Y
11	MSD	JKS	Will import data from Moodle								
		GKL	Y	Y	N	Y	Y	Y	Y	Y	N
12	ELE III Tribol	SCB	Y	Y	Y	Y	Y	Y	Y	N	Y
13	ELE III IE	PGK	Y	N	N	Y	Y	Y	Y	N	Y
14	ELE IV AMP	SRG	Y	Y	Y	Y	Y	Y	Y	N	Y
15	ELE IV PDD	ALD	Moodle problem, related to DATA importing from previous year's records								

JSPM's Jaywantarao Sawant
Engineering Hadapsar
SHEM-10 BAJ

Prof. S. S. Anil Kumar
In-charge, Faculty Admin
JSPM's Jaywantarao Sawant College of Engineering
Hadapsar, Pune-411 028

PRINCIPAL
J.S.P.M.'S Jaywantarao Sawant
College of Engg.
Hadapsar, Pune-28

Course File AY 2021-22

- Course file index

JSPM's Jayawantrao Sawant COE, Hadapsar, Pune-28
Department of Mechanical Engineering
OVERALL COURSE FILE INDEX (Semester wise)

Sr. No	Particulars
1	Vision and Mission of Institute and Department
2	PEOs, POs, PSOs, COs,
3	Institute and Department Academic Calendar
4	Class Time Table and Faculty Time Table
5	SPPU Contribution Letter e.g. Syllabus Detailing Workshop
6	SPPU Structure and Syllabus
7	Moodle Content Page
8	SPPU CO-PO mapping sheet
9	CO-PO mapping enrichment sheet
10	Subject wise gap analysis
11	Students' Database with Previous Semester Attendance and Result with remark of weak or bright
12	CO assessment plan
13	Teaching Plan of Theory & Practical with planned dates and actual dates
14	Theory Session Plan
15	SPPU Exam Question Papers along with Solution and Marking Scheme
16	Experiment Session Plan
17	Experiment wise performance parameter & rubric sheet
18	Assessment sheet of experiment rubric wise
19	PBL/Mini-project activity Performance Parameter
20	Midterm Question Bank for Week students
21	Midterm Question paper with solution, result and sample answer sheets
22	Midterm mark sheet in NBA format with question paper
23	End term Question Bank for Week students
24	End term Question paper with result and sample answer sheets
25	End term mark sheet in NBA format with question paper
26	Student activities evidences (innovative methods)
27	Guest Lecture Record (if any)/ Industry Visit record (if any)
28	Continuous assessment sheet
29	Co attainment
30	Teaching feedback

- Subject wise gap

JAYAWANTH RAO SAWANTH COLLEGE OF ENGINEERING, PUNE Department of Mechanical Engineering, Page 22 of 22					
Module:- Allied			Subject - Computer Aided Engineering		
Category	Relevant PO	Mapped Courses	Compliance Status	Identified gaps (Statements of PIs)	Action Plans (Activities planned)
Knowledge	PO1	CAE	Partial	1.4.3 Apply principles/ computational techniques to solve the complex engineering structural and flow problems	Determine the type of analysis, material selection and boundary conditions on the mechanical component (P5 of activity No.3)
	Problem-solving Skills	PO2	CAE	Partial	2.2.3 Identify, assemble and evaluate information and resources.
2.2.4 Compare and contrast alternative solution processes to Select the best process.					Validation of results using analytical method. (P5 of experiment No. 01)
PO3		CAE	Partial	2.3.3 Combine scientific principles and engineering concepts to formulate models (mathematical or otherwise) of a system or process that is appropriate.	Validation of results using analytical method. (P5 of experiment No. 01)
				2.4.4 Researches alternative existing solutions	Validation of results using analytical method. (P5 of experiment No. 01)
PO4		CAE	Partial	3.1.3 Understands the nature of the complex/open-ended engineering problems	Determine the type of analysis, material selection and boundary conditions on the mechanical component (P5 of activity No.3)
Supporting skills	PO9	CAE	Partial	4.1.2 Examine the relevant methods, tools and techniques of experiment design, system calibration, data acquisition, analysis and presentation.	Determine the type of analysis, material selection and boundary conditions on the mechanical component (P5 of activity No.3)
				5.1.1 Identify modern engineering tools such as computer aided drafting, ICT tools, modeling and analysis; techniques and resources for engineering activities.	Interactive videos of all practicals, game pedagogy used through moodle for all units
	PO10	CAE	Partial	5.1.2 Compare/adapt/modify/extend tools and techniques to solve engineering problems	Determine the type of analysis, material selection and boundary conditions on the mechanical component (P5 of activity No.3)
Attitude	PO8	CAE	Partial	5.2.2 Demonstrate proficiency in using discipline specific tools	Certification of Basic ANSYS Workbench Course
				9.3.1 Present results as a team, with smooth integration of contributions from all individual efforts	Communicate analysis through effective report writing and presentation (P5 of activity No. 3)
Attitude	PO12	CAE	Partial	10.1.3 Come flow in a document or presentation - a logical progression of ideas so that the main point is clear	Communicate analysis through effective report writing and presentation (P5 of activity No. 3)
				8.2.2 Examine and apply moral & ethical principles to known case studies	Literature Survey of domain (P2 of activity No. 3)
Attitude	PO12	CAE	Partial	12.1.2 Identify deficiencies or gaps in knowledge and demonstrate an ability to source information to close this gap through student activities.	Represent the obtained values of stress, strain and maximum deflection in tabular form.


Prof. A.P. Rananaware
Subject Teacher


Dr. E. K. Alkade
Module Co-ordinator


Dr. P. G. Kadam
Program Co-ordinator


Dr. P. A. Patil
Head of Dept.

- Teaching plan

Teaching, Learning and Assessment Plan

Name of Faculty: Amruta Rananaware

Subject: Computer Aided Engineering [302050]

Class: T.E.

Division: B

Planned Duration: 47

SPPU Exam: ISE (30 M), ESE (70 M), Practical (50 M)

Course outcomes: Students should be able to

CO.1:- DEFINE and SELECT Element type for CAE tools and DESCRIBE the significance of shape functions in finite element formulations.
CO.2:- APPLY the various meshing techniques and proper element type for better evaluation of approximate results.
CO.3:- APPLY and Analyze material properties and boundary condition to SOLVE 1-D element stiffness matrices to obtain nodal or elemental solution using CAE software and validate analytically.
CO.4:- APPLY and Analyze material properties and boundary condition to SOLVE problems other than 1-D. And solve element stiffness matrices to obtain nodal or elemental solution for 2D elements using CAE software and validate analytically.
CO.5:- EVALUATE and SOLVE non-linear and dynamic analysis problems by analyzing the results obtained from analytical and computational method.
CO.6:- Explain various processes and CAE software for analysis of CFD, Injection molding of plastic, Casting and Sheet Metal, and NVH analysis.

Sr. No	Content	Duration	Planned Date	Actual Date	CO	Teaching Method	Teaching Model (Physical /Online)	Student Learning Material	Student Activity	Relevant Short Video Link	Assessment tool
Prerequisites											
1a	Solid Mechanics- Stress and strain	1 Hrs.	01/2/22			Interactive learning	Online	10 min. Video of introduction to stress and strains	Watch and Understand the concept of stress and strain	https://www.youtube.com/watch?v=aQ86Q8t1FQE	MCQ Test
1b	Introduction to Deflection of beams		01/2/22			Interactive learning	Online	20 min. video of Deflection in beams	Watch and Understand the concept of deflection in beams	https://www.youtube.com/watch?v=MvBqCeZlpQ	
1c	Numerical Methods- Newton Raphson method, RungeKutta.					Interactive learning	Online	12 min. video of Newton Raphson Method	Watch and understand the basics of Newton Raphson method	https://www.youtube.com/watch?v=PIPiv6gn_Ls	
1d	Manufacturing- Plastic Injection molding					Interactive learning	Online	3.35 min. video of Plastic Injection molding	Watch and Understand the manufacturing process of plastics	https://www.youtube.com/watch?v=QgJLrwDPxE	
1e	Heat and Mass transfer					Interactive learning	Online	5 min. Video of introduction to Heat transfer	Watch and Understand basic concept of heat transfer	https://www.youtube.com/watch?v=ObwHyds04jY	
Unit 1											
Elemental Properties - CO.1: -DEFINE the use of CAE tools and DESCRIBE the significance of shape functions in finite element formulations.											
1	Introduction to Computer Aided Engineering (CAE), Use of CAE in Product development.	1hrs	03/2/22	03/2/22	CO1	Chalk & Board, PPT	Physical	Notes + PPT		https://youtu.be/6T16MRmaGcs	Mid Term Test & MCQ test
2	Discretization methods - Finite Element Method (FEM), Finite Difference Method (FDM) and	1hrs	04/2/22	04/2/22	CO1	Chalk & Board, PPT	Physical	Notes + PPT		https://youtu.be/PorGJkiz9s	

	Minimum and Maximum angles, Average element size, Minimum Length, skewness, Tetra Collapse etc.					PPT					
11	Higher Order Element vs Mesh Refinement,	1hrs	16/3/22	16/3/22	CO2	Chalk & Board, PPT	Physical	Notes + ppt			
12	Geometry Associate Mesh, Mesh quality,	1hrs	17/3/22	17/3/22	CO2	Chalk & Board, PPT	Physical				
13	Bolted and welded joints representation, Mesh independent test.	1hrs	21/3/22	21/3/22	CO2	Chalk & Board, PPT	Physical				

Sr. No	Content	Duration	Planned Date	Actual Date	CO	Teaching Method	Teaching Model (Physical /Online)	Student Learning Material	Student Activity	Relevant Short Video Link	Assessment tool	
Unit 3D Finite Element Analysis												
CO.3:- APPLY material properties and boundary condition to SOLVE 1-D element stiffness matrices to obtain nodal or elemental solution and GENERATE the results in the form of contour plot by the USE of CAE tools.												
14	Consistent Unit System, Introduction to approaches used in Finite Element Analysis (FEA) such as direct approach and energy approach	1hrs	22/3/22	22/3/22	CO3	Chalk & Board	Physical	Notes + ppt			Mid Term Test & MCQ test	
15	Bar and Truss Element - Element stiffness matrix,	1hrs	23/3/22	23/3/22	CO3	Chalk & Board	Physical					
16	Bar and Truss Element - Assembling stiffness Equation, Load vector, stress and reaction forces calculations.	1hrs	24/3/22	24/3/22	CO3	Chalk & Board	Physical					

17	Bar and Truss Element - Practice Numerical for the same	1hr	28/3/22	29/3/22	CO3	Chalk & Board	Physical	Notes ppt			
18	Bar and Truss Element - Practice Numerical for the same	1hr	29/3/22	30/3/22	CO3	Chalk & Board	Physical				
19	Temperature effect on Bar Element- Calculation due to uniform temperature change.	1hr	30/3/22	31/3/22	CO3	Chalk & Board	Physical				
20	Temperature effect on Bar Element- Stress and reaction forces calculations.	1hr	31/3/22	11/4/22	CO3	Chalk & Board	Physical				
21	Temperature effect on Bar Element- Practice Numerical for the same	1hr	4/3/22	12/4/22	CO3	Chalk & Board	Physical				

Sr. No	Content	Duration	Planned Date	Actual Date	CO	Teaching Method	Teaching Model (Physical /Online)	Student Learning Material	Student Activity	Relevant Short Video Link	Assessment tool
Unit 42D Finite Element Analysis											
CO.4:- SOLVE 2-D element stiffness matrices to obtain nodal or elemental solution, and GENERATE the results in the form of contour plot by the USE of CAE tools.											
22	Plane Stress-Strain, axi-symmetric problems in 2D elasticity.	1hrs	11/3/22	18/4/22	CO4	Chalk & Board	Physical	Notes +ppt			End Term Test & MCQ test
23	Constant Strain Triangle (CST) - Element Stiffness matrix, Assembling stiffness equation, Load vector, Stress and reaction forces calculations.	1hrs	12/4/22	19/4/22	CO4	Chalk & Board	Physical				
24	Constant Strain Triangle (CST) - Practice Numerical for the same	1hrs	13/4/22	20/4/22	CO4	Chalk & Board	Physical				
25	Constant Strain Triangle (CST) - Practice Numerical for the same	1hrs	18/4/22	21/4/22	CO4	Chalk & Board	Physical				
26	Post Processing Techniques - Check and validate accuracy of results,	1hrs	19/4/22	25/4/22	CO4	Chalk & Board	Physical				

27	Average and Un-average stresses, and special tricks for Post Processing.	1hrs	20/4/22	26/4/22	CO4	Chalk & Board	Physical	Notes + ppt					
28	Interpretation of results and design modifications, CAE reports.	1hrs	21/4/22	27/4/22	CO4	Chalk & Board	Physical						
29	Constant Strain Triangle (CST) - Practice Numerical for the same	1hrs	25/4/22	28/4/22	CO4	Chalk & Board	Physical						
Sr. No	Content	Dur-ation	Plann ed Date	Actual Date	CO	Teaching Method	Teaching Model (Physical /Online)	Student Learning Material	Student Activity	Relevant Short Video Link	Assessment tool		
Unit 5 Non-Linear and Dynamic Analysis CO.5:- EVALUATE and SOLVE non-linear and dynamic analysis problems by analyzing the results obtained from various numerical methods and computational method.													
30	Non-Linear Analysis: Introduction to Nonlinear Problems, Comparison of Linear and Nonlinear analysis,	1hrs	2/5/22	2/5/22	CO5	Chalk & Board, PPT	Physical	Notes + ppt			End Term Test & MCQ test		
31	Types of Nonlinearities, Stress-strain measures for Nonlinear analysis,	1 hrs	2/5/22	2/5/22	CO5	Chalk & Board, PPT	Physical						
32	Analysis of Geometric, Material Nonlinearity,	1hrs	2/5/22	2/5/22	CO5	Chalk & Board, PPT	Physical						
33	Solution Techniques for Nonlinear analysis, Newton Raphson Method, Essential steps in Nonlinear analysis.	1hrs	2/5/22	4/5/22	CO5	Chalk & Board, PPT	Physical						
34	Dynamic Analysis: Introduction to Dynamic Analysis,	1hrs	4/5/22	4/5/22	CO5	Chalk & Board, PPT	Physical						
35	Comparison of Static and Dynamic analysis,	1hrs	5/5/22	5/5/22	CO5	Chalk & Board, PPT	Physical						

36	Time domain and frequency domain, Types of loading,	1hrs	5/5/22	5/5/22	CO5	Chalk & Board, PPT	Physical	Notes + ppt				
37	Simple Harmonic motion, Free vibration, Boundary conditions of free vibration, Solution.	1hrs	5/5/22	5/5/22	CO5	Chalk & Board, PPT	Physical					

Sr. No	Content	Dura-tion	Plan ned Date	Actual Date	CO	Teaching Method	Teaching Model (Physical /Online)	Student Learning Material	Student Activity	Relevant Short Video Link	Assessment tool	
Unit 6 Applications of Computer Aided Engineering CO. 6: Describe applications of CAE in various Mechanical engineering domains.												
38	Computational Fluid Dynamics (CFD): Introduction, Three dimensions of Fluid Dynamics,	1hrs	6/5/22	6/5/22	CO6	Chalk & Board, PPT	Physical	Notes + ppt			End Term Test & MCQ test	
39	Equilibrium Equation for a fluid, Conservation form of Fluid flow equation,	1hrs	6/5/22	6/5/22	CO6	Chalk & Board, PPT	Physical					
40	Integral form of the Conservation Laws.	1hrs	6/5/22	6/5/22	CO6	Chalk & Board, PPT	Physical					
41	Injection moulding of Plastics: Simplification of Mould Geometry for FEA, Material Model for Mould FEA,	1hrs	9/5/22	9/5/22	CO6	Chalk & Board, PPT	Physical					
42	Boundary Conditions for Mould FEA, Loading of Mould in FEA, Results Analysis.	1hrs	9/5/22	9/5/22	CO6	Chalk & Board, PPT	Physical					
43	Simulation for Manufacturing Processes	1hrs	10/5/22	10/5/22	CO6	Chalk & Board, PPT	Physical					

Laboratory & Activity Plan
Course: Computer Aided Engineering

Class & Div : TE- B

Academic Year: 2021-22 Term: II
Faculty Name: Prof. A. P. Rananaware

Exp. No.	Unit No.	CO	Planned week	Title	Batch	Actual Date	Assessment Date	Remarks	Student Activity Dates
1	III	CO 3	March 1 st week	1D Bar Element – Structural Linear Analysis	B1	10/03/22	17/03/22	---	
					B2	09/03/22	15/03/22	---	
					B3	07/03/22	14/03/22	---	
2	III	CO 3	March 2 nd Week	Truss Analysis using 1D Element	B1	17/03/22	24/03/22	---	
					B2	15/03/22	22/03/22	---	
					B3	14/03/22	21/03/22	---	
3	IV	CO 4	March 3 rd Week	Plate/Shell Element – Structural Linear and Non-Linear Analysis	B1	24/03/22	31/03/22	---	
					B2	22/03/22	29/03/22	---	
					B3	21/03/22	28/03/22	---	
4	IV	CO 4	March 4 th Week	Beam Element – Non-Linear Buckling Analysis	B1	21/03/22	21/04/22	---	
					B2	29/03/22	19/04/22	---	
					B3	28/03/22	18/04/22	---	
5	III	CO 3	April 1 st Week	Thermal Analysis – Static/Transient Analysis	B1	21/04/22	28/04/22	---	
					B2	19/04/22	25/04/22	---	
					B3	18/04/22	25/04/22	---	
6	III	CO 3	April 2 nd Week	Coupled Analysis- (Structural + Thermal)	B1	28/04/22	5/05/22	---	
					B2	25/04/22	2/05/22	---	
					B3	25/04/22	2/05/22	---	
7	IV	CO 4	April 3 rd Week	Analysis of Machine Component using 3D Elements	B1	5/05/22	9/05/22	---	
					B2	2/05/22	9/05/22	---	
					B3	2/05/22	9/05/22	---	
10	VI	CO 6	April 4 th Week	Presentation on advanced applications of FEA, NVH, CFD, Crash, Fatigue, Manufacturing, etc.	B1	26/05/22	9/05/22	---	
					B2	26/05/22	9/05/22	---	
					B3	26/05/22	9/05/22	---	

Sign of Course Coordinator

Sign of Module Coordinator

Sign of HOD

● Assessment Plan

CO Assessment Process: Direct/Indis-Graded and Indirect Graded (Internal)

Course: Computer Aided Engineering (AY 2021-22) TE-2019 Pattern

CO	Unit	Marks Allocation	Objective Test						Class Pedagogy			Lab Work		Internal Test		Total	% Distribution
			OT 1 (10)	OT 2 (10)	OT 3 (10)	OT 4 (10)	OT 5 (10)	OT 6 (10)	Quiz & Lab Quiz	DRAG AND DROP	Assignment	30	15	MTT	ETI		
CO1	I	10	10						10	10	10	10	15	15		60	18
CO2	II	15		10					10	10	10	10	15	15		80	18
CO3	III	10			10				10	10	10	20		15		75	17
CO4	IV	10				10			10	10	10	10		15		65	15
CO5	V	10					10		10	10	10	20		15		75	17
CO6	VI	10						10	10	10	10	10		15		65	15

Prof. A. P. Rananaware
Subject Teacher

Dr. E. N. Alavade
Module Co-ordinator

Dr. P. A. Patil
HOD, Mechanical Engineering Department

- Theory & Experiment session plan

Subject: Computer Aided Engineering
Session Plan for Lecture

Name of Faculty: Prof. A. P. Rananaware

Class: TE Mechanical

Following is the split up for one hour theory session:

Sr. No.	Name of Activity	Duration (Min)
1	Reflection Session: Review of content covered in previous session (Q&A).	10
2	Syllabus coverage as per teaching plan	20
3	Reflection Session: TPS/Q&A/reproduction by student on board	10
4	Syllabus coverage as per teaching plan	20



Prepared By
Subject Teacher



Reviewed by
Module Coordinator



Approved by
HOD



JSPM's
JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING



Experiment No. 1

1D Bar Element – Structural Linear Analysis.

Session Plan

Time (min)	Content	Learning Aid / Methodology	Faculty Approach	Typical Student Activity	Skill / Competency Developed
10	Introduction to ANSYS APDL	Chalk & Talk, Presentation	Introduces, Facilitates, Explains	Listens, Participates, Discusses	Knowledge, Communication, intrapersonal
20	Explanation and procedure of performing experiment	Chalk & Talk, Presentation	Introduces, Facilitates, Explains	Listens, Participates, Discusses	Knowledge, Communication, intrapersonal
60	Perform the analysis according to the procedure discussed	Software Demonstration	Explains, Monitors	Participates, Discusses	Knowledge, Application, comprehension, Hands on experiment
30	Validation of results obtained by software and discussion	Software Demonstration	Explains, Monitors	Listens, Participates, Discusses	Knowledge, Application, comprehension, Hands on experiment



(Prof. A. P. Rananaware)



(Module Coordinator)

MOODLE Content data Index A.Y. 2021-22

JSCOE – Mechanical Moodle data Index

- **Announcements**
 - Attendance
 - Syllabus
 - Teaching L Plan UPDATED
 - CO assessment plan
 - CAS format for PR/TW marks calculation for students awareness
 - E-books
- **Exam Section**
 - Insem Exam
 - MTT (Written Exam)
 - ETT (Written Exam)
 - SPPU Solved Papers
- **Pre-requisites**
 - Pre-requisites videos and Quiz (you tube/NPTL video etc. links regarding pre-requisites and concern Quiz of minimum 20marks)
 - Recorded / You tube/ NPTL(give time slot to be watched for clearing required concept) minimum 2 and maximum 6 videos
 - Pre-requisites Quiz maximum 2 (each with 15 minutes duration)
 - Pre-requisites notes (Required to clear fundamentals of the subject)- Optional
- **Unit I: Name of the Unit**
 - Image/Gif representing Unit content
 - Syllabus and CO
 - Self Recorded Lecture videos / Links
 - Notes (Hand written / E-notes) / PPT in Flipbook format
 - Reference material for advanced study (optional)
 - Activity 1:- Simple Quiz
 - Activity 2:- Game Pedagogy -I
 - Activity 3:- Image related Quiz (Addressing BL4)
 - Activity 4:- Numerical Quiz/ Game Pedagogy -II/HSP Interactive content
 - Unit 1 Question Bank as per SPPU Syllabus (Theory)

Similarly to be followed for

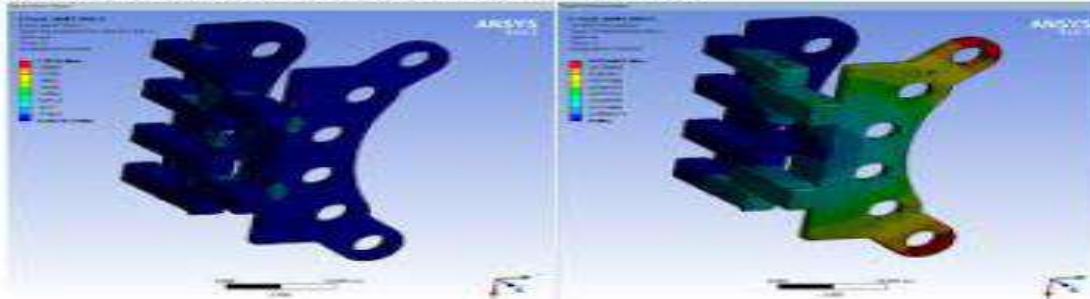
- Unit II
- Unit III
- UNIT IV
- Unit V
- Unit VI
- **Practical Section**
 - Practical/ Laboratory plan
 - Lab Manual
 - Experiment 1: Expt. details Video
 - Quiz (Bank with 20 Questions strictly based on Practical video) Quiz of 10 questions for 15 minutes
 - Write Up for reference
 - Expt. Submission (10 Marks)
- **Online Courses (Coursera /NPTL etc.)**
 - Link of courses
 - Submission of certificates

Moodle Course Contents :

Each faculty prepares course content during CEP and uploads on moodle. One sample course snapshot is shown below.

Course Name: Computer Aided Engineering

Course Teacher: Prof. A. P. Rananaware



Announcements

Lectures for SEM-II AY 21-22 will be starting from 1st Feb, 2022 (Tuesday).






JSPMS JAYAWANTRAO SAMANT COLLEGE OF ENGG						
MECHANICAL ENGG DEPARTMENT						
TE.- B	TIME TABLE (SEM -II A.Y. 2021-22)					we.f.: 01 Feb 2022
TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
10:00 AM TO 11:00 AM	CAE	Seventh Sense Training Session		ELE II	ELE II	DTS
11:00 AM TO 12:00 PM	DTS			AIML	DTS	ELE II
12:00 PM TO 01:00 PM	ELE II	CAE	AIML	CAE	AIML	AIML
RECESS						
02:00 PM TO 03:00 PM	A1 AIML A2 CAE	A1 CAE A2 AIML	A1 DTS A2 FP & CL	A1 FP & CL A2 DTS	A1 ML A2 ML	CAE
03:00 PM TO 04:00 PM		DTS	MINI PROJECT	MINI PROJECT	MINI PROJECT	
PR Batches	B1 :- Roll No. 3201 to 3238		B2 :- Roll No. 3240 to 3277			
SUBJECTS:-			FACULTY			
1) Artificial Intelligence & Machine Learning		AIML	Mahesh Shinde			
2) Computer Aided Engineering		CAE	Amruta Rananaware (DC)			
3) Design of Transmission Systems		DTS	Dr Pradnya Kosbe			
4) Elective II		ELE II	Sandeep Patil			
5) Measurement Laboratory		ML	Vijaya Avati			
6) Fluid Power & Control Laboratory		FP & CL	Ganesh Lamdhade			

TE-B Attendance

Restricted Not available unless:









- The activity [Prerequisite Quiz 1](#) is marked complete
- The activity [Prerequisite Quiz 2](#) is marked complete
- The activity [Prerequisite Quiz 3](#) is marked complete
- The activity [Quiz Exp. No. 01](#) is marked complete.




Syllabus TE Mech 2019 Pattern

-  [T-L-A Plan](#)
-  [Lab Plan](#)
-  [CO Assessment Plan AY 21-22](#)
-  [CAE Assessment Sheet \(TE B Div\)](#)
-  [E-Books](#)

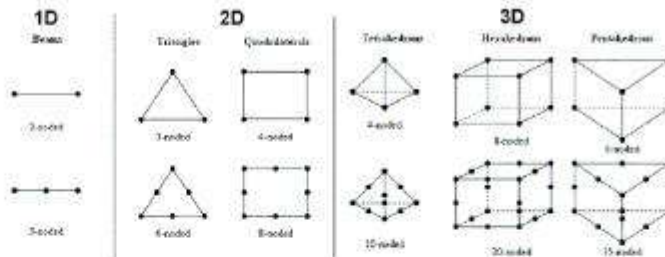
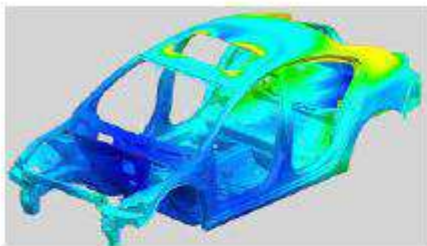
Prerequisites



-  [Introduction to Stress and Strain](#)
-  [Prerequisite Quiz 1](#)
 71 of 77 attempted
-  [Introduction to Deflection of Beam](#)
-  [Prerequisite Quiz 2](#)
 69 of 77 attempted
-  [Introduction to Newton Raphson Method](#)
-  [Prerequisite Quiz 3](#)

-  68 of 77 attempted
-  [Introduction to Injection Molding](#)
-  [Introduction to Heat Transfer](#)

Unit 1: Elemental Properties



Unit 1	Elemental Properties	07 Hrs.
<p>Introduction to Computer Aided Engineering (CAE), Use of CAE in Product development, Discretization methods – Finite Element Method (FEM), Finite Difference Method (FDM) and Finite Volume Method (FVM), CAE Tools- Pre-processor, Solver and Post-Processor.</p> <p>Element Shapes – 1D, 2D and 3D elements, Nodal Unknowns and field variables, Coordinate Systems, Shape Functions- linear, quadratic and cubic, Convergence Requirements of Shape Functions, Derivation of Polynomial Shape Functions using coordinate systems for Bar, Beam, Triangular, and rectangular elements.</p>		

CO 1: DEFINE the use of CAE tools and DESCRIBE the significance of shape functions in finite element formulations.

A) Notes/PPT and Recorded Lectures

[Lecturewise PPT U1](#)

[PPT](#)

[Lecture No. 01](#)

[Lecture No. 02](#)

[Lecture No. 03](#)

[Elemental Properties](#)

Notes

B) Activity

[Glossary U1](#)

[Activity 1.1- Simple Quiz \(10 Marks\).\(CO 1\)](#)

73 of 77 attempted

[Activity 1.2 - Snakes and Ladders \(10 Marks\).\(CO 1\)](#)

[Activity 1.3 - Drag & Drop \(10 Marks\).\(CO 1\)](#)

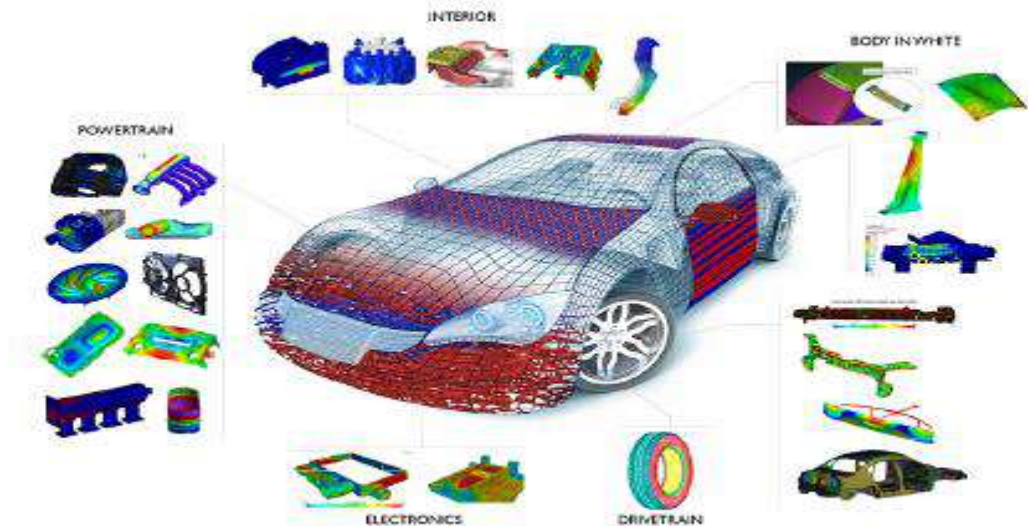
73 of 77 attempted

[Activity 1.4- Crossword \(10 Marks\).\(CO 1\)](#)

C) Question Bank

[Ques Bank Unit 1](#)

Unit 6: Applications of Computer Aided Engineering.



Unit 6	Applications of Computer Aided Engineering	08 Hrs.
<p>Computational Fluid Dynamics (CFD): Introduction, Three dimensions of Fluid Dynamics, Equilibrium Equation for a fluid, Conservation form of Fluid flow equation, Integral form of the Conservation Laws.</p> <p>Injection moulding of Plastics: Simplification of Mould Geometry for FEA, Material Model for Mould FEA, Boundary Conditions for Mould FEA, Loading of Mould in FEA, Results Analysis.</p> <p>Simulation for Manufacturing Processes like Casting and Sheet Metal Applications: Introduction and workflow of Casting Simulation Software and Sheet Metal Applications.</p> <p>Durability Analysis: Durability, Reliability and Fatigue, FEA bases fatigue analysis viz: Stress-Life approach (S-N method) and Strain-Life approach (E-N method).</p> <p>Crash Analysis: Introduction, Explicit time integration schemes, implicit integration schemes.</p> <p>Noise Vibration and Harshness (NVH) Analysis: NVH Concepts, Terminology, FEA for structural Dynamics, FEA for Acoustics.</p>		

CO 6: Explain various processes and CAE software for analysis of CFD, Injection molding of plastic, Casting and Sheet Metal, and NVH analysis.

A) Notes/PPT and Recorded Lectures

 [Lecturewise ppt U6](#)

 [Applications of CAE](#)

Notes

B) Activity



-  [Glossary U6](#)
 -  [Activity 6.1 - Simple Quiz \(10 Marks\). \[CO 6\]](#)
 71 of 77 attempted
 -  [Activity 6.2 - Snakes and Ladders \(10 Marks\). \[CO 6\]](#)
 -  [Activity 6.3 - Drag and Drop U6 \(10 Marks\). \[CO 6\]](#)
 72 of 77 attempted
 -  [Activity 6.4 - Crossword U6 \(10 marks\). \[CO 6\]](#)
- C) Question Bank
-  [Question Bank U6](#)

Practical's Section

The student shall complete the following activity as a Practical using any commercial FEA software or open-source software's

1. 1D Bar Element – Structural Linear Analysis
2. Truss Analysis using 1D Element
3. Plate/Shell Element – Structural Linear and Non-Linear Analysis
4. Beam Element – Non-Linear Buckling Analysis
5. Thermal Analysis – Static/Transient Analysis
6. Coupled Analysis- (Structural + Thermal)
7. Analysis of Machine Component using 3D Elements
8. Non-Linear Analysis of Assembly using Contact Elements
9. Modal Analysis – Spring -Mass system, simply supported/Cantilever beam, etc.
10. Presentation on advanced applications of FEA, NVH, CFD, Crash, Fatigue, Manufacturing, etc.

Note:

- The lab report shall consist of completion of Practical's and Presentations.
- Practical examination shall be based on the practical undertaken during the semester.

-  [Lab Plan](#)
-  [Introduction to ANSYS](#)
-  [1D Tensile Loading on Beam](#)
-  [1D Steady State Conduction](#)

Exp. No. 01

[Exp. No. 01: 1D Bar Element Structural Linear Analysis](#)

[Quiz Exp. No. 01](#)

56 of 77 attempted

[Exp. No. 01](#)

[Exp. No. 02](#)

[Exp. No. 03](#)

[Exp. no. 04](#)

[Exp. No. 05](#)

[Exp. No. 06](#)

[Exp. No. 07](#)

[Exp. No. 08](#)

[Student Activity 2: Case study on analysis mechanical component using ANSYS](#)

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NPTEL/Online Courses

[NPTEL Course Finite Element Method](#)

[Udemy Course Ansys Workbench - Analysis Training Program](#)

Udemy Categories Liberty Business Teach on Udemy

Design > Design Tools > ANSYS

Ansys Workbench - Analysis Engineering Training Program

If you want to be an Analysis Engineer with Ansys Workbench join this Course!

4.3 ★★★★★ (609 ratings) 1,482 students
 Created by Academy of Engineering
 Last updated 8/2021 English English (India)

What you'll learn

- ✓ What's the Finite Element Method?
- ✓ Interface of Ansys Mechanical
- ✓ Creating Mesh Model Technique
- ✓ Static Structural Analysis
- ✓ Modal Analysis
- ✓ Harmonic Response Analysis
- ✓ Interface of Ansys Workbench
- ✓ Finite Element Analysis Steps
- ✓ Joints Contacts and Boundary Conditions
- ✓ Dynamic Analysis
- ✓ Transient Analysis
- ✓ Random Vibration Analysis

₹525 (₹2,499, 85% off)
 5 hours left at this price

30-Day Money-Back Guarantee

This course includes:

- 16.5 hours on-demand video
- 110 downloadable resources

Submission of Certificate

56 of 77 submitted, 2 upgraded

Instructions:

- 1) Kindly upload the folder by adding class, roll no. and name. (eg. TEB_Roll No._Name Surname)
- 2) Certificate file should be in PDF Format and should not exceed 1 MB.
- 3) Also upload the screenshot of registration.

Course End Survey

Course End Survey

66 of 77 attempted

Activity 1: Multiple choice questions quiz

Computer Aided Engin ...

Home Dashboard Events My courses This course

Dashboard > My courses > CAE_2021-22-SEM-2-8 DIV MECH > Unit 1: Elemental Properties > Activity 1.1- Simple Quiz (10 Marks) [CO 1] > Preview

Quiz navigation

1 2 3 4 5 6 7 8 9 10

Finish attempt ...

Time left 0:14:15

Navigation

- Dashboard
- Site home
- Site pages

Question 1
 Not yet answered
 Marked out of 1.00
 Flag question
 Edit question

The finite element method formulation of the problem results in a system of

Select one:

- 1. flow equations
- 2. algebraic equations
- 3. Arithmetic equations
- 4. logical equations

Question 2
 Not yet answered
 Marked out of 1.00
 Flag question
 Edit question

CAE stand for

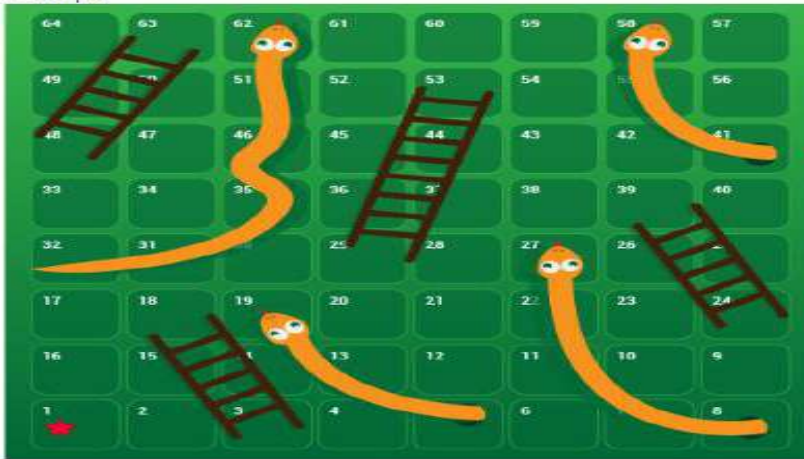
Select one:

- 1. Computer, Aeronautical Engineering
- 2. Computer, Aesthetic Engineering
- 3. Computer, Automated Engineering
- 4. Computer Aided Engineering

Activity 2: Game Pedagogy (Snakes & Ladder quiz)

When same number of nodes are used to define the geometry and displacement, the element is called: _____ element
 Choose one answer.

- Subparametric
- Isoparametric
- Superparametric
- Simple



Activity 3: Game Pedagogy (Drag & Drop quiz)

Computer Aided Engin ...

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[Hide blocks](#)
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Quiz navigation



Finish attempt ...

Start a new preview

Question 3

Not yet answered

Marked out of 1.00

Flag question

Edit question

CAE allows _____ and _____ of the product's physical properties without needing a

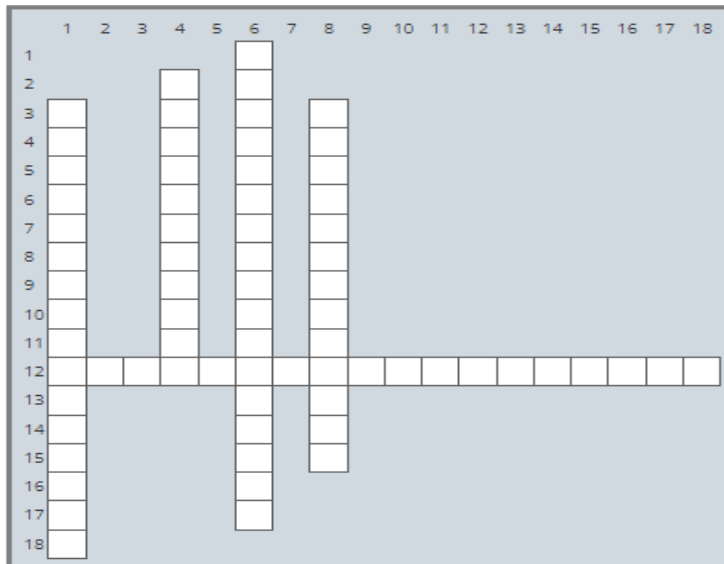
simulations

performing tests

physical prototype

Activity 4: Game Pedagogy (Crossword quiz)

Grade 0 %



Welcome!

Click on a word to begin/continue.

Check crossword

End of crossword game

Print

Across

12:

This is finite number of displacements.

Down

1:

The field variables, displacements (strains)

& stresses or stress resultants must satisfy the governing condition which

AY 2021-22: SEMESTER 2

IQAC Guidelines

Guidelines for course file preparation

All the Subject-in-charge should follow the following guidelines while preparing the course file and approve the content from module coordinator based on following parameters.

A.Teaching and Learning Plan:

1. Adherence to Academic Calendar
2. Use of various instructional methods
3. Methodologies to support weak students and encourage bright students
4. List of text, reference books, video links, research papers.

B.CO-PO Mapping

1. Relevancy of Cos with Syllabus curriculum.
2. Preparation of a matrix of COs and PO statement
3. Consistency/justification of co-relation parameters of the above matrix

C.GAP IDENTIFICATION

1. Steps taken to get identified gaps included in the curriculum.(e.g. letter to university/BOS)
2. List of curricular gaps for the attainment of defined POs & PSOs

3. Delivery details of content beyond syllabus
4. Mapping of content beyond syllabus with the POs & PSOs

D.LABORATORY

1. Conduct of experiments (Observation in Lab)
2. Continuous Assessment in the laboratory

E. QUALITY OF internal ASSESSMENT

1. Question paper validation to ensure desired standard from outcome attainment perspective as well as learning levels perspective
2. Quality of Assignment and its relevance to Cos
3. Evidence of COs coverage in class test / mid-term tests
4. Assignments to promote self-learning, survey of contents from multiple sources, assignment evaluation and feedback to the students, mapping with the Cos
5. Verify the attainment levels as per the benchmark set for all courses.



JAYAWANT SHIKSHAN PRASARAK MANDAL'S
Jayawantrao Sawant College of Engineering

(Approved by AICTE, New Delhi, Govt of Maharashtra and Affiliated to University of Pune)

Id.No. : PU/PN/Engg/199/(2004)

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Dr. Rajendra D. Kanphade

M.E., Ph.D. (Electronics Engg.)

LMISTE, FIETE, SMIEEE

Principal

Prof. Dr. T.J. Sawant
D.E.E., B.E.(Electrical), MISTE, Ph.D
FOUNDER SECRETARY

To,
The Principal,
JSCOE, Hadapsar,
Pune- 411028

Date: - 03/06/2022

Subject: - Formation of Programme Assessment Committee (PAC) in Mechanical Engineering Department.

Respected Sir,

With reference to the previous formation meeting of PAC held on 07/06/2022, PAC committee are subjected to following roles and regulations to regulate the academic and departmental activity

1. Evaluates and monitors the attainment of POs / PSOs
2. Proposes necessary changes for continuous improvements.
3. Preparation of periodic reports on programme related activities, status reports for management and key stakeholders.
4. Faculty motivation: Attend / organize workshop / seminar / FDP, paper publication, development of models / lab.
5. Student motivation: Attend/participate tech competitions, paper presentation, mini projects/models, social / cultural events, skill development programs.
6. Conduct surveys, interaction with faculty, coordinators and other stakeholders
7. Planning of co-curricular activities for attainment of POs / PSOs.
8. Project policy
9. PBL, Mini project policy.

Following are the members of PAC till further notice:

SR. No.	Name of the member	Designation	Sign
1	Dr. Prakash Kadam	Chairman, PAC - Programme Coordinator / (NBA Coordinator)	
2	Dr. Prakash Kadam	Member- AMC (DAC)	
3	Prof. Manisha Nalawade	Member - Module Coordinator - Allied Engineering	
4	Dr. Nilesh Alone	Member - Module Coordinator - Design	
5	Dr. Prakash Kadam	Member - Module Coordinator - Manufacturing	
6	Prof. Laxman Mane	Member - Module Coordinator - Fluid & Thermal	
7	Dr. Prakash Kadam	Member- AMC (DAC)	
8	Dr. Prakash Kadam	Member- IQAC Dept member	



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M.E., Ph.D. (Electronics Engg.)
LMISTE, FIETE, SMIEEE
Principal

Date: 21.06.2021

Departmental Circular:

All PAC members are hereby informed to attend the meeting on 25/06/2021 in room no C-109 at 3.30 pm.

The agenda of meeting is as follows:

1. Discussion on Innovative Teaching Methods
2. Introduce new gap analysis.
3. Discussion regarding Results of assessment of OBE.
4. Discussion regarding Conduct of Student Activities, Rubrics for Student Activities and Lab Work.
5. Discussion regarding whether it is required to Alter the Target and Threshold values for next Academic Year.
6. Modification of Instructional Lab Manual.
7. Project, mini-project, PBL & Internship.

All are informed to attend the said meeting at 3.30 pm.

Dr. Pradeep Patil

HOD [Mech]



Meeting of Program Assessment Committee

Date: 27/12/2021

Time: 03:30 pm

Venue: C-109

Minutes of meeting:

1. Strengthening of CO-PO w.r.t previous CEP Program
2. Detailing of gap analysis
3. Preparation of Teaching Plan of all respective subjects.
4. Particularization of Gap finding in respective subject to enhance the POs.
5. Discussion of results of 2020.
6. Discussion of Performance Indicator (PI), mapping based on PI.
7. Detailed discussion on PI indicators.
8. After introduction of PI, Enrichment of CO, Number of CO mapped, weak CO map.
9. Discussion on mapping of student activity on basis of PI.
10. PSO modification with respect to PI (Internally).
11. Maintaining same threshold values according to version-2
 - a. Direct- Indirect 80:20 weighted
 - b. Internal- External 30:70 weighted
12. All labs in charge should take care about safety measures during lab practice and same should be display in all labs.

Action taken

Sr. No.	Description of work	Responsible person	Target date to complete
1	Strengthening of CO-PO	All Module Coordinators/ Subject Coordinators	As per schedule date Before start of semester
2	Plan Extra lecture for Moodle practice for the students (SE, TE & BE).	All Module Coordinators/ Subject Teachers	As per schedule date Before start of semester
3	Teaching Plan	Subject Teachers	As per schedule date Before start of semester
4.	Extra lecture for Moodle practice	Time Table In- Charge	As per schedule date Before start of semester



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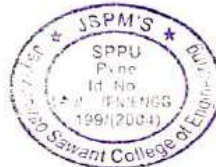
Dr. Rajendra D. Karphade
M.E., Ph.D. (Electronics Engg)
LMISTE, FIETE, SMIEEE
Principal

Attendees:

Sr. No.	Name of Member	Subject / Coordinator	Sign
01	Dr. P. G. Kadam	Chairman PAC	
02	Dr. P. G. Kadam	AMC co-ordinator	
03	Prof. Nilesh Alone	Module Coordinator - Design	
04	Prof. Laxman Mane	Module Coordinator - Fluid & Thermal	
05	Dr. P.G.Kadam	Module Coordinator - Manufacturing	
06	Prof. Manisha Nalawade	Module Coordinator - Allied Engineering.	
07	Prof. Pradnya Kosbe	Faculty Representative - Internal Examination	
08	Prof. Rakesh Sidheshwar	MESA Faculty Advisor	R.K.S.
09	Prof. Shekhar Gulwade	Department Training & Placement	
10	Prof. Mahesh Gaikwad	Project Coordinator	
11	Prof. Manisha Nalawade	Alumni Coordinator	
12	Dr. Abhijeet Dandawate	III Cell Co-ordinator	A.B.D
13	Prof. Namrata Ranaware	ISHRAE Faculty Advisor	-
14	Prof. Chitaranjan Mane	Auto Club - Faculty Advisor, E-newsletter	C.Man
15	Prof. Mahesh Shinde	Industrial Visit Co-ordinator	MCS
16	Prof. Sandeep Patil	PBL co-ordinator, Mini Project	S.B.Patil
17	Prof. Fayaz Kharadi	Overall Lab Maintenance Co-ordinator	F.Y.K.
18	Prof. Nilesh Alone	ME Design Coordinator	
19	Prof. Siddesh Bandekar Prof. Vijaya Awati Prof. Shivanand Talwar	T & P Joint Department Co-ordinator,	
20	Prof. Mahesh Shinde	Guest Lecture coordinator	MCS
21	Prof. Shivanand Talwar	Internship Co-ordinator,	S.S.T.

Dr. P. G. Kadam
Program Coordinator

Dr. P A Patil
Head of Department



Principal
JSPM'S Jayawantrao Sawant
College of Engineering,
Hadapsar, Pune - 28