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 Calender
			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	20/08/20201	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 Calender (AY 2021-22 /SEM-I)

Date	June – 21	July – 21	August – 21	September – 21	October – 21	November – 21	December – 21
1	SPPU - Oral practical Exam SEM-II		Sat (Off)	Regular acdemics of SE TE, BE			Internal End Term Examination 2021-22 Sem-I (TE, BE) (TENTATIVE)
2			Sunday		Gandhi Jayanti-Holiday	Display of defaulter students list	
3		Sat (Off)	Pre Sem Activity - CEP (SE, TE & BE), 19th July to 07th August 2021	Display of defaulter students list	Sunday		
4		Sunday		Sat (Off)	Internal Mid Term Examination 2021-22 Sem-I (BE) (TENTATIVE)	Diwali Holidays (4TH & 5TH NOV. 2021)	Sat (Off)
5	Sat (Off)			Sunday			Sunday
6	Sunday			BE Project Poster Presentation		Sat (Off)	Conclusion of Teaching (TE & BE)
7	SPPU - Oral practical Exam sem-II					Sunday	
8			Sat-BE placement activity			Regular academics of SE TE, BE	
9			Sunday	BE Project Stage I Presentation	[illegible]		
10					Sunday		
11		Sunday		Sat-BE placement activity	Regular academics of SE TE, BE		
12				Sunday			Sunday
13	Sunday			Pre Sem Activity: Parents Meet (TE)			Internal End Term Examination 2021-22 Sem-I (SE) (TENTATIVE)
14			Sat (Off)	Internal Mid Term Examination 2021-22 Sem-I (SE, TE) (TENTATIVE)		Sunday	
15			Sunday - 15TH August Independence day			Regular acdemics of SE TE, BE	
16			Commencement of Teaching (TE, BE)				
17		Sat (Off)	Regular acdemics of SE TE, BE		Sunday		
18		Sunday		Sat-BE placement activity	Regular acdemics of SE TE, BE		Sat (Off)
19	Sat (Off)	Pre Sem Activity - CEP (SE, TE & BE), 19th July to 07th August 2021		Sunday			Sunday
20	Sunday			Regular acdemics of SE TE, BE		Sat (Off)	Conclusion of Teaching (SE)
21	Report of Continuous Assessment and attainment sheets of 19-20 SEM-II subjects		Sat (Off)			Sunday	Report of Continuous Assessment and attainment sheets of 19-20 SEM-II subjects
22			Sunday			SPPU InSem Examination 2021-22 Sem-I SE, TE, BE (Tentative)	
23			Regular acdemics of SE TE, BE		[illegible]		
24		Sat (Off)			[illegible]		
25		Sunday		Sat-BE placement activity	Regular acdemics of SE TE, BE		
26		Pre Sem Activity - CEP (SE, TE & BE), 19th July to 07th August 2021		Sunday			
27	Sunday		BE Project Topics Registration seminar	Regular acdemics of SE TE, BE			End of teaching
28			Sunday			Sunday	Pre Sem Activity: Parents Meet (SE & DSE)
29			Regular acdemics of SE TE, BE			Internal End Term Examination 2021-22 Sem-I (TE, BE) (TENTATIVE)	
30	[illegible]				Sat-BE placement activity		
31				Display Result of Internal Test-II	Regular acdemics of SE TE, BE		

Note:

- *Conduct Unit Test on Every Unit in Coordination with CC and HOD*
- *All type material should be upload on moodle before start of Unit*
- *Manage session if 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, Mechanical
Professor & Head
In Mech. Engg. Department
JSPM's Jayawantrao Sawant College of Engineering

Dr S M Hambarde
Dean, Academics

Dr. R D Kanphade
Principal
Principal
JSPM'S Jayawantrao Sawant College of Engg. 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 Nalawade	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

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

Master Time Table Sem -1 AY 2021-22

JSPMS JAYAWANTRAO SAWANT COLLEGE OF ENGG

MECHANICAL ENGG DEPARTMENT

MASTER TIME TABLE (SEM - I A.Y. 2021-22)

	TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SE A	08:30 AM TO 09:30 AM	SM	EEE	ET	SM	SMD A1 GD & T A2 EEE A3	SM
	09:30 AM TO 10:30 AM	EMM	EMM	SMD	EEE		EMM
	SHORT RECESS						
	10:45 AM TO 11:45 AM	SMD	SMD	EMM	ET	EEE A1 SMD A2 GD & T A3	ET
	11:45 AM TO 12:45 PM	EEE	SM	EEE	EMM		SMD
	LONG RECESS						
	01:30 PM TO 02:30 PM	ET	SM A1 ET A2 EMM A3	EMM A1 SM A2 ET A3	ET A1 EMM A2 SM A3	GD & T A1 EEE A2 SMD A3	
	02:30 AM TO 03:30 PM	SM					
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
SE B	08:30 AM TO 09:30 AM	SM	EEE	ET	SM	SMD B1 GD & T B2 EEE B3	SM
	09:30 AM TO 10:30 AM	EMM	EMM	SMD	EEE		EMM
	SHORT RECESS						
	10:45 AM TO 11:45 AM	SMD	SMD	EMM	ET	EEE B1 SMD B2 GD & T B3	ET
	11:45 AM TO 12:45 PM	EEE	SM	EEE	EMM		SMD
	LONG RECESS						
	01:30 PM TO 02:30 PM	ET	SM B1 ET B2 EMM B3	EMM B1 SM B2 ET B3	ET B1 EMM B2 SM B3	GD & T B1 EEE B2 SMD B3	
	02:30 AM TO 03:30 PM	SM					
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
SE C	08:30 AM TO 09:30 AM	SM	EEE	ET	SM	SMD C1 GD & T C2 EEE C3	SM
	09:30 AM TO 10:30 AM	EMM	EMM	SMD	EEE		EMM
	SHORT RECESS						
	10:45 AM TO 11:45 AM	SMD	SMD	EMM	ET	EEE C1 SMD C2 GD & T C3	ET
	11:45 AM TO 12:45 PM	EEE	SM	EEE	EMM		SMD
	LONG RECESS						
	01:30 PM TO 02:30 PM	ET	SM C1 ET C2 EMM C3	EMM C1 SM C2 ET C3	ET C1 EMM C2 SM C3	GD & T C1 EEE C2 SMD C3	
	02:30 AM TO 03:30 PM	SM					
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
TE A	08:30 AM TO 09:30 AM	A1 MECHX A2 DME A3 SD	DME	MECHX	A1 NSM A2 HMT A3 DME	A1 DME A2 SD A3 MECHX	NSM
	09:30 AM TO 10:30 AM		NSM	ELE I MST			HMT
	SHORT RECESS						
	10:45 AM TO 11:45 AM	NSM	A1 DME A2 NSM A3 HMT	DME	DME	A1 SD A2 MECHX A3 DME	DME ELE I MST
	11:45 AM TO 12:45 PM	HMT		HMT	ELE I MST		
	LONG RECESS						
	01:30 PM TO 02:30 PM	DME	HMT	A1 HMT A2 DME A3 NSM	MECHX	MECHX	MINI PROJECT
	02:30 AM TO 03:30 PM	MECHX	NSM		NSM	ELE I MST	
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
TE B	08:30 AM TO 09:30 AM	HMT	B1 DME B2 NSM B3 HMT	B1 MECHX B2 DME B3 SD	HMT	DME	MECHX
	09:30 AM TO 10:30 AM	DME			ELE I MST	NSM	ELE I MST
	SHORT RECESS						
	10:45 AM TO 11:45 AM	B1 NSM B2 HMT B3 DME	ELE I MST	B1 SD B2 MECHX B3 DME	B1 DME B2 SD B3 MECHX	HMT	NSM
	11:45 AM TO 12:45 PM		MECHX			DME	HMT
	LONG RECESS						
	01:30 PM TO 02:30 PM	NSM	B1 HMT B2 DME B3 NSM	DME	DME	ELE I MST	MINI PROJECT
	02:30 AM TO 03:30 PM	MECHX		HMT	MECHX	NSM	
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
TE C	08:30 AM TO 09:30 AM	HMT	MECHX	MECHX	C1 DME C2 SD C3 MECHX	C1 HMT C2 DME C3 NSM	HMT
	09:30 AM TO 10:30 AM	MECHX	ELE I MST	DME			DME
	SHORT RECESS						
	10:45 AM TO 11:45 AM	C1 SD C2 MECHX C3 DME	HMT	NSM	DME	NSM	MECHX ELE I MST
	11:45 AM TO 12:45 PM		NSM	HMT	HMT	DME	
	LONG RECESS						
	01:30 PM TO 02:30 PM	C1 NSM C2 HMT C3 DME	DME	ELE I MST	C1 DME C2 NSM C3 HMT	C1 MECHX C2 DME C3 SD	MINI PROJECT
	02:30 AM TO 03:30 PM		ELE I MST	NSM			
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
BE A	08:30 AM TO 09:30 AM	HEP	HEP	HEP	HEP	A1 ELE I A2 HVAC	BE PROJECT
	09:30 AM TO 10:30 AM	DOM	DOM	CAD/CAM	DOM		
	SHORT RECESS						
	10:45 AM TO 11:45 AM	A1 DOM	A1 HVAC	ELE I HVAC	ELE I HVAC	CAD/CAM	BE PROJECT
	11:45 AM TO 12:45 PM	A2 ELE I	A2 DOM	ELE II AE	ELE II AE	CAD/CAM	
	LONG RECESS						
	01:30 PM TO 02:30 PM	A1 CAD/CAM	A1 HEP	ELE I HVAC	CAD/CAM	ELE I HVAC	BE PROJECT
	02:30 AM TO 03:30 PM	A2 HEP	A2 CAD/CAM	ELE II AE	DOM	ELE II AE	
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
BE B	08:30 AM TO 09:30 AM	HEP	HEP	HEP	HEP	A1 ELE I A2 HVAC	BE PROJECT
	09:30 AM TO 10:30 AM	DOM	DOM	CAD/CAM	DOM		
	SHORT RECESS						
	10:45 AM TO 11:45 AM	A1 DOM	A1 HVAC	ELE I HVAC	ELE I HVAC	CAD/CAM	BE PROJECT
	11:45 AM TO 12:45 PM	A2 ELE I	A2 DOM	ELE II AE	ELE II AE	CAD/CAM	
	LONG RECESS						
	01:30 PM TO 02:30 PM	A1 CAD/CAM	A1 HEP	ELE I HVAC	CAD/CAM	ELE I HVAC	BE PROJECT
	02:30 AM TO 03:30 PM	A2 HEP	A2 CAD/CAM	ELE II AE	DOM	ELE II AE	
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					
BE C	08:30 AM TO 09:30 AM	HEP	HEP	HEP	HEP	A1 ELE I A2 HVAC	BE PROJECT
	09:30 AM TO 10:30 AM	DOM	DOM	CAD/CAM	DOM		
	SHORT RECESS						
	10:45 AM TO 11:45 AM	A1 DOM	A1 HVAC	ELE I HVAC	ELE I HVAC	CAD/CAM	BE PROJECT
	11:45 AM TO 12:45 PM	A2 ELE I	A2 DOM	ELE II AE	ELE II AE	CAD/CAM	
	LONG RECESS						
	01:30 PM TO 02:30 PM	A1 CAD/CAM	A1 HEP	ELE I HVAC	CAD/CAM	ELE I HVAC	BE PROJECT
	02:30 AM TO 03:30 PM	A2 HEP	A2 CAD/CAM	ELE II AE	DOM	ELE II AE	
	03:30 AM TO 04:30 PM	EXPERT LECTURE / GFM MEETING /DEPT MEETING/CLUB/DAB/PAC MEETINGS					

[illegible]

Prof. Mahesh Shinde

Professor & Head

Dr. P A [illegible] Mech. Engg. Department

[illegible]

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 :JSCOE **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)	

CEP

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 1 (July 12-17, 2021) Activity Report (Unit I &II)

Sr. No	Tasks
1	Syllabus of Unit
2	Applicable picture, depicting content of unit
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	Activiy 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content
9	Theory Question Bank

Status of the Tasks	
Y	Completed
N	Incomplet
NA	Not Applicable

Sr. No.	Subject	Subject Teacher	Tasks								
			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	Y	N
3	ET	ASB	Y	Y	Y	Y	N	N	N	N	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	Y	Y	Y	Y	Y
4	EEE	SVG	N	N	N	N	N	N	N	N	N
5	DME	MKG	Y	Y	N	N	N	N	N	N	N
		PEK	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	MECHX	MAN	Y	Y	Y	Y	Y	Y	N	Y	Y
		MCS	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	HMT	PNP	N	N	N	N	N	N	N	N	N
		LNM	Y	Y	Y	Y	Y	Y	Y	Y	Y
		RKS	Y	Y	Y	Y	Y	Y	Y	Y	N
8	ELE-I APT	SAD	Y	Y	Y	Y	Y	Y	Y	Y	N
		FHK	Y	Y	Y	Y	Y	Y	Y	Y	N
9	NSM	SPP	Y	Y	Y	Y	N	N	N	N	N
		APY	Y	Y	N	Y	Y	N	N	N	N
10	DML	FHK	N	N	N	N	N	N	N	N	N
		SAD	N	N	N	N	N	N	N	N	N
11	H & P	SRG	Y	Y	Y	Y	Y	Y	Y	Y	Y
		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	N	N	N	N
13	DOM	SCB	Y	Y	N	Y	Y	Y	Y	Y	N
		NUA	Y	Y	Y	Y	Y	Y	Y	Y	N
		PGK	Y	Y	N	Y	Y	Y	Y	Y	Y
14	Elect-I (FEA)	SCB	N	N	N	N	N	N	N	N	N
15	Elect-I (HVAC)	PAP	Y	Y	Y	Y	Y	Y	Y	Y	Y
16	t-II (AUTOMOT	ALD	Y	Y	Y	Y	N	N	N	N	Y
17	Elect-II (EAM)	LNM	Y	Y	N	Y	Y	N	N	N	N
18	Elect-II (OR)	MAN	Y	Y	N	Y	Y	Y	N	N	Y

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

Prof. Anjuma. Sathe
(Faculty Advisor)

PRINCIPAL
J.S.P.M.'S Jayawantrao 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
1	Syllabus of Unit
2	Applicable picture, depicting content of unit
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	Activiy 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content
9	Theory Question Bank

Status of the Tasks	
Y	Completed
N	Incompiet
NA	Not Applicable

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	Y
2	SMD	MVH	N	N	N	N	N	N	N	N	N
3	ET	ASB	N	N	N	N	N	N	N	N	N
		NDR	N	N	N	N	N	N	N	N	N
		CCM	N	N	N	N	N	N	N	N	N
3	EMM	ALD	Y	Y	Y	Y	Y	Y	Y	Y	Y
		SBP	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	EEE	SVG	N	N	Y	N	N	N	N	N	N
5	DME	MKG	N	N	N	N	N	N	N	N	N
		PEK	Y	N	Y	Y	Y	Y	Y	Y	Y
6	MECHX	MAN	Y	Y	N	Y	N	N	N	N	Y
		MCS	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	HMT	PNP	Y	Y	N	Y	Y	Y	Y	Y	N
		LNM	Y	Y	N	Y	Y	Y	N	Y	N
		RKS	Y	Y	N	Y	Y	Y	Y	Y	N
8	ELE-I APT	SAD	Y	Y	N	Y	Y	Y	Y	Y	Y
		FHK	Y	N	Y	Y	Y	Y	Y	Y	Y
9	NSM	SPP	N	N	N	Y	N	N	N	N	N
		APY	N	N	N	N	N	N	N	N	N
10	DML	FHK	N	N	N	N	N	N	N	N	N
		SAD	N	N	N	N	N	N	N	N	N
11	H & P	SRG	Y	Y	N	Y	Y	Y	Y	Y	Y
		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	Y	Y	Y	Y	Y	Y	Y
		NUA	Y	Y	Y	Y	Y	Y	Y	N	Y
		PGK	N	N	N	N	N	N	N	N	N
14	Elect-I (FEA)	SCB	N	N	Y	Y	Y	Y	Y	Y	Y
15	Elect-I (HVAC)	PAP	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Elect-II (AUTOMOT	ALD	Y	Y	Y	Y	N	Y	Y	Y	Y
	Elect-II (EAM)	LNM	Y	Y	Y	Y	Y	Y	Y	Y	Y
18	Elect-II (OR)	MAN	N	N	N	N	N	N	N	N	N

JSPM's Jayawantrao Sawant College of Engineering Hadapsar, Pune
SAHEB ... BAJA TEAM

Prof. ... Head
Mech. Engg. Department
JSPM's Jayawantrao Sawant College of Engineering

PRINCIPAL
J.S.P.M.'S Jayawantrao 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 3 (July 26-31, 2021) Activity Report (Unit v & vi)

Sr. No	Tasks
1	Syllabus of Unit
2	Applicable picture, depicting content of unit
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	Activiy 4:- Numerical Quiz/ Game Pedagogy -II/HSP Interactive content
9	Theory Question Bank

Status of the Tasks	
Y	Completed
N	Incompet
NA	Not Applicable

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

JSPM's Jayawantrao Sawant College of Engineering Hadapsar, Pune-28
SWEETA BAJAJ TEAM

PRINCIPAL
J.S.P.M.'S Jayawantrao 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-II (AUTOMOT	ALD	NA	NA
17	Elect-II (EAM)	LNM	NA	NA
18	Elect-II (OR)	MAN	NA	NA

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

Professor & Head
Mechanical Engg. Department
JSPM's Jayawantrao Sawant College of Engineering

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

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 Jayawantrao Sawant College Of Engineering Hadapsar, Pune-28.
SAEINDIA BAJA TEAM

Professor & Head
(HOD) Mech. Engg. Department
(Faculty Advisor)
JSPM's Jaywantrao Sawant College of Engineering
Hadapsar, Pune 411 028.

PRINCIPAL
J.S.P.M.'S Jayawantrao 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

Dr. A. G. Kharat, Director Academics.
Prof. Anil Bhosale, Deputy Director Academics
Prof. Hemant Joshi- ARQAC Member.
Dr. Nitin Khardekar- ARQAC Member.

Organizing Committee

Prof. Dr. Nilesh Alone	9881933885
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 1[illegible] 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 K.G 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

jscoemechanical@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

CEP

A

4 Week Curriculum Enrichment Program

On

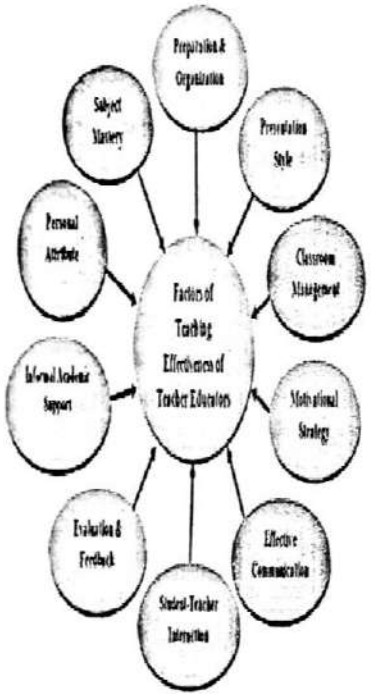
Curriculum Design for Semester-I Subjects

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) 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

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
HOD [MECH], Contact No: +919765542844
Advisory Committee
Dr. A. G. Kharat, Director Academics.
Prof. Anil Bhosale,
Deputy Director Academics
Prof. Hemant Joshi- ARQAC Member.
Dr. NitinKhardekar- ARQAC Member.

Organizing Committee
Prof. Dr. PrakashKadam 98232 04824
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

NileshAlone<alonenilesh@gmail.com>

CEP2021Certificate

1message

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

Alonenilesh<alonenilesh@gmail.com> Mon,Aug9,2021at12:59PMTo

To,
Prof.NileshAloneAssistantP
rofessor

CertificateofParticipation

DearSir/Madam;

I sincerely appreciate the quantum you devote while enriching curricula and plannedstrategies for achieving our academic goals. I appreciate the efforts you dedicated to get the taskcompleted on time during **"FourWeekCurriculumEnrichmentProgram"(July12– Aug 08,2020)** of **Department of Mechanical Engineering ,JSPM's JaywantraoSawant College ofEngineering ,Hadapsar, Pune-411028.**

Subject:DOMRole:Su
bjectTeacher

Thankingyou

Prof.PradeepAnandraoPatil
Professor&HeadinMechanicalEngineeringDepartment
Vision:Toberecognizedasacenterofeducationforaspiringmechanicalengineercateringeverchangingneedsofindustry andsociety.
JaywantraoSawantCollegeofEngineering,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)
Id.No. : PU/PN/Engg./199/(2004)
S. No.58, Handewadi Road, Hadapsar, Pune - 411028
Ph. :8484897374 Telefax : 020-26970880
Email : principal@jspmjscoe.edu.in
Website : www.jspmjscoe.edu.in

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

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

JayawantraoSawant College of Engineering, Hadapsar. Pune-28
Department of Mechanical Engineering

Curriculum Enrichment Program for 2021-22Sem-I

Inauguration Function Report

Curriculum Enrichment Programin JSPM's JSCOE Mechanical Engineering Department was inaugurated with the online meeting by the HOD Dr. P. A. Patilin presence of and all the staff memberson 12/07/2021.The CEP aims to prepare all the documents related to all the subjects of Mechanical Engineering for academic year2021-2022(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
1	Syllabus of Unit
2	Applicable picture, depicting content of unit
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	Activiy 4:- Numerical Quiz/ Game Pedagogy -II/H5P Interactive content
9	Theory Question Bank

Status of the Tasks	
Y	Completed
N	Incomplet
NA	Not Applicable

		Subject	Tasks								
Sr. No.	Subject	Teacher	1	2	3	4	5	6	7	8	9
1	EM III	MMR	Y	Y	N	Y	Y	Y	Y	Y	Y
2	KoM	NUA	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
		MKG	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	N	N
12	ELE III Tribo	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	N
15	ELE IV PDD	ALD	Moodle problem, related to DATA importing from privious year's records								

JSPM's Jayawantrao Sawant College of Engineering Hadapsar

Prof. Anilkumar ...
In Mech. Engg (Faculty Advisor)
JSPM's Jayawantrao Sawant College of Engineering
Hadapsar, Pune- 411 028

PRINCIPAL
J.S.P.M.'S Jayawantrao 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

JSPM's JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING, HADAPSAR, PUNE					
Department of Mechanical Engineering AY 2021-22					
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	1.4.5 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 (P3 of activity No.3)
Problem-solving Skills	PO2	CAE	Partial	2.2.2 Identify, assemble and evaluate information and resources.	Literature Survey of domain (P2 of activity No. 3)
				2.2.4 Compare and contrast alternative solution processes to Select the best process.	Validation of results using anlalytical method. (P5 of experiment No. 01)
				2.3.1 Combine scientific principles and engineering concepts to formulate model/s (mathematical or otherwise) of a system or process that is appropriate	Validation of results using anlalytical method. (P5 of experiment No. 01)
				2.4.4 Researches alternative existing solutions	Validation of results using anlalytical method. (P5 of experiment No. 01)
	PO3	CAE	Partial	3.1.1 Understands the nature of the complex/open-ended engineering problems	Determine the type of analysis, material selection and boundary conditions on the mechanical component (P3 of activity No.3)
	PO4	CAE	Partial	4.1.2 Examine the relevent 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 (P3 of activity No.3)
	PO5	CAE	Partial	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
				5.1.2 Create/adapt/modify/extend tools and techniques to solve engineering problems	Determine the type of analysis, material selection and boundary conditions on the mechanical component (P3 of activity No.3)
				5.2.2 Demonstrate proficiency in using discipline specific tools	Certification of Basic ANSYS Workbench Course
Supporting skills	PO9	CAE	Partial	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)
	P10		Partial	10.1.3 Create 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)
Attitude	PO8	CAE	Partial	8.2.2 Examine and apply moral & ethical principles to known case studies	Literature Survey of domain (P2 of activity No. 3)
	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. Ranañaware	Dr. E. N. Aitavade	Dr. P. G. Kadam	Dr. P. A.Patil
Subject Teacher	Module Co-ordinator	Program Co-ordinator	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=aQf6Q8t1FQE	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=MvBqCeZllpQ	
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=QglJLrwDPxE	
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=ObwHydso4fY	
	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	07/2/22	08/2/22	CO1	Chalk & Board, PPT	Physical	Notes + PPT		https://youtu.be/PorGJxlzl9s	

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

Sr. No	Content	Dura-tion	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	11/4/22	18/4/22	CO4	Chalk & Board	**Physical**				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**	Notes +ppt			
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 a-tion	Plann ed Date	Actual Date	CO	Teaching Method	Teaching Model (Physical /Online)	Student Learning Material	Student Activity	Relevant Short Video Link	Assessment tool
	Unit 5Non-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	3/5/22	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 6Applications 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				

	like Casting and Sheet Metal Applications: Introduction and workflow of Casting Simulation Software and Sheet Metal Applications.							Note			
44	**Durability Analysis:** Durability, Reliability and Fatigue, FEA bases fatigue analysis viz: Stress-Life approach (S-N method) and Strain-Life approach (E-N method).	1hrs	10/5/22	10/5/22	CO6	Chalk & Board, PPT	**Physical**	ppt			
45	**Crash Analysis:** Introduction, Explicit time integration schemes, implicit integration schemes.	1hrs	11/5/22	11/5/22	CO6	Chalk & Board, PPT	**Physical**				
46	**Noise Vibration and Harshness (NVH) Analysis:** NVH Concepts, Terminology,	1hrs	12/5/22	12/5/22	CO6	Chalk & Board, PPT	**Physical**				
47	FEA for structural Dynamics, FEA for Acoustics.	1hrs	12/5/22	12/5/22	CO6	Chalk & Board, PPT	**Physical**				

References:

1. S. S. Bhavikatti, Finite Element Analysis, New Age International Publishers, Third Edition, 2015.
2. G Lakshmi Narasaiah, Finite Element Analysis, BS Publications / BSP Books, 2nd edition, 2020.
3. P. Seshu, Text book of Finite Element Analysis, PHI Learning Private Limited, New Delhi, 10th Printing, 2012.
4. Cook R. D., Finite Element Modeling for Stress Analysis, John Wiley and Sons Inc, 1995.
5. S. Moaveni, Finite element analysis, theory and application with Ansys, Pearson, Third Edition, 2011.
6. J. N. Reddy, An Introduction to the Finite Element Method, Mcgraw Hill Series in Mechanical, 2005.

Web References:

1. https://nptel.ac.in/courses/112/104/112104116/-for Basics of Finite Element Analysis by Prof. NachiketaTiwari, IIT Kanpur.
2. https://nptel.ac.in/courses/112/106/112106130/for Advanced Finite Element Analysis by Dr. R. Krishnakumar, Department of Mechanical Engineering, IIT Madras.
3. https://nptel.ac.in/courses/112/103/112103299/for Finite Element Analysis for Welding Analysis by Prof. Swarup Bag, Department of Mechanical Engineering, IIT Guwahati.
4. https://sites.ualberta.ca/~wmoussa/AnsysTutorial/ for ANSYS Tutorials.

Name and Signature: Prof. A P Rarawaw
Role: Assistant Professor Faculty (Prepared By)
Date: 01/02/22

Module Coordinator (Reviewed by)

HOD (Approved by)

Copy To:(Soft copy of Signed document be provided)
1. Program Coordinator 2. Website coordinator

JSPM's JSCOE HADAPSAR PUNE
Department of Mechanical Engineering
AY 2021-22, Sem-II

Laboratory & Activity Plan

Academic Year: 2021-22Term:II
Faculty Name:Prof. A. P. Rananaware
Course: Computer Aided Engineering
Class &Div : TE- B

Exp. No.	Unit No.	CO	Planned week	Title	Batch	Actual Date	Assessment Date	Remarks	Student Activity Dates
1	III	CO 3	March 1st week	1D Bar Element – Structural Linear Analysis	B1	10/03/22	17/03/22	—	
					B2	08/03/22	15/03/22	—	
					B3	07/03/22	14/03/22	—	
2	III	CO 3	March2nd 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 3rd 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 4th Week	Beam Element – Non-Linear Buckling Analysis	B1	31/03/22	21/04/22	—	
					B2	29/03/22	19/04/22	—	
					B3	28/03/22	18/04/22	—	
5	III	CO 3	April 1st Week	Thermal Analysis – Static/Transient Analysis	B1	21/04/22	28/04/22	—	
					B2	19/04/22	26/04/22	—	
					B3	18/04/22	25/04/22	—	
6	III	CO 3	April 2nd 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 3rd 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 4th 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 Tools-Graded and Indirect Graded (Internal)

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

CO	UNIT	Marks allocation	Objective Test						Game Pedagogy			Lab Work		Internal Test		Total	% Distribution
			OT 1 (10)	OT 2 (10)	OT 3 (10)	OT4 (10)	OT5 (10)	OT6 (10)	Snake & Ladder	DRAG AND DROP	Numerical Quiz	30	In Sem	MTT	ETT	440	
CO1	I	15	10						10	10	10	10	15	15		80	18
CO2	II	15		10					10	10	10	10	15	15		80	18
CO3	III	15			10				10	10	10	20			15	75	17
CO4	IV	15				10			10	10	10	10			15	65	15
CO5	V	15					10		10	10	10	20			15	75	17
CO6	VI	15						10	10	10	10	10			15	65	15

Prof. A. P. Rananaware
Subject Teacher

Dr. E. N. Aitavade
Module Co-ordinator

Dr. P. A. Patil
HOD, Mechachnical 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

Estd. 2004

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/H5P 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)

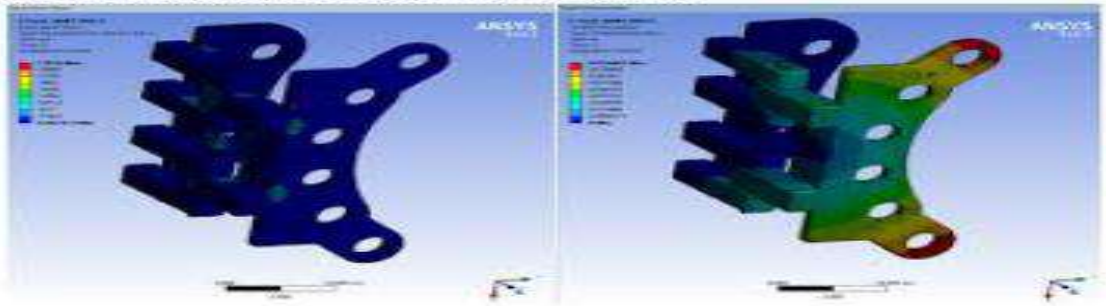
- **Online Courses (Coursera /NPTL etc.)**
  - Link of courses
  - Submission of certificates

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 SAWANT COLLEGE OF ENGG						
MECHANICAL ENGG DEPARTMENT						
T.E.- B		TIME TABLE (SEM -II A.Y. 2021-22)			w.e.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 3239		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

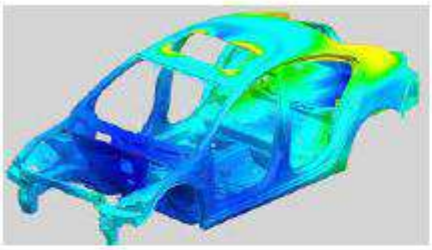
Prerequisite Quiz 3

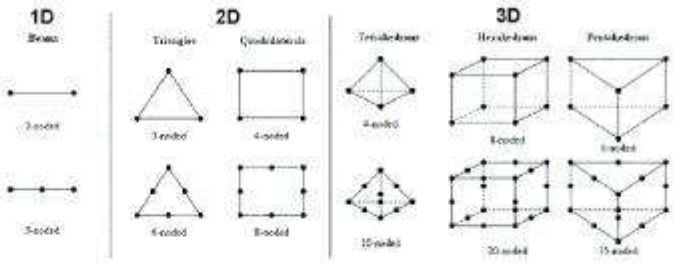
68 of 77 attempted

Introduction to Injection Molding

Introduction to Heat Transfer

Unit 1: Elemental Properties





Unit 1	Elemental Properties	07 Hrs.

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.

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.

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]

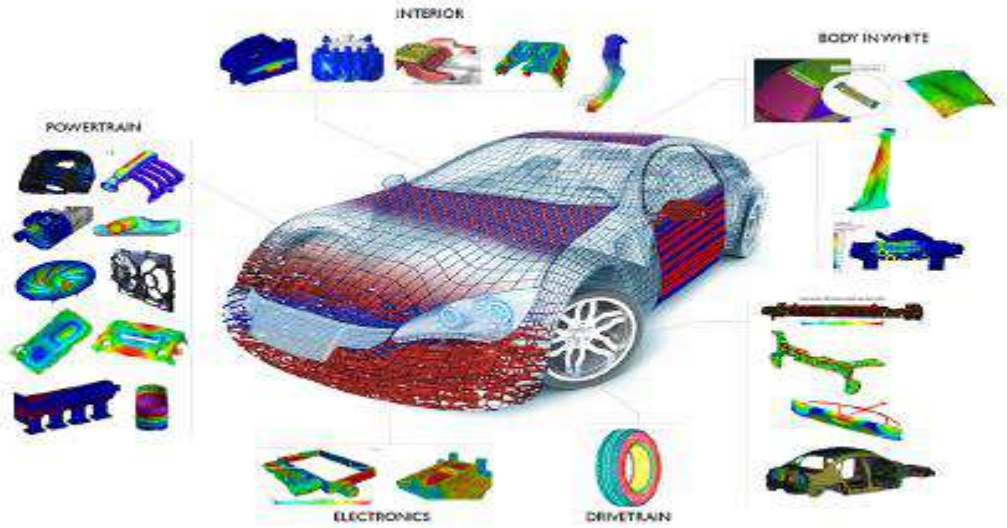
73 of 77 attempted

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.

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.

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.

Simulation for Manufacturing Processes like Casting and Sheet Metal Applications: Introduction and workflow of Casting Simulation Software and Sheet Metal Applications.

Durability Analysis: Durability, Reliability and Fatigue, FEA bases fatigue analysis viz: Stress-Life approach (S-N method) and Strain-Life approach (E-N method).

Crash Analysis: Introduction, Explicit time integration schemes, implicit integration schemes.

Noise Vibration and Harshness (NVH) Analysis: NVH Concepts, Terminology, FEA for structural Dynamics, FEA for Acoustics.

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

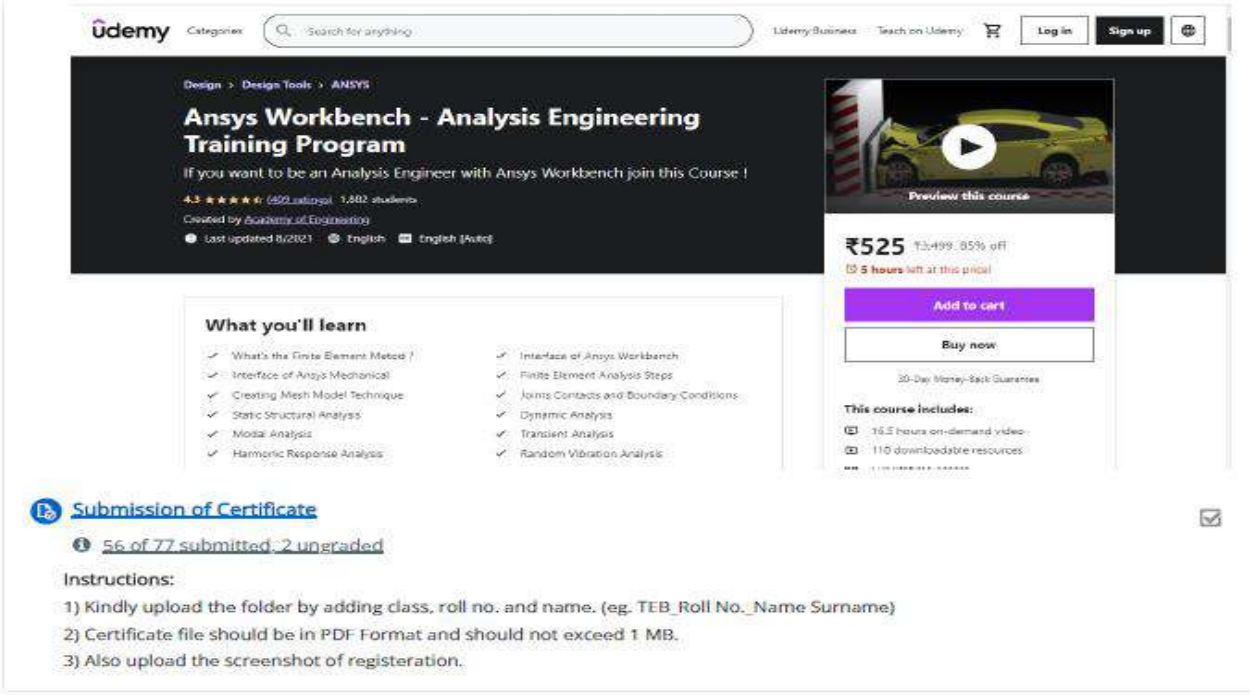
Exp. No. 01

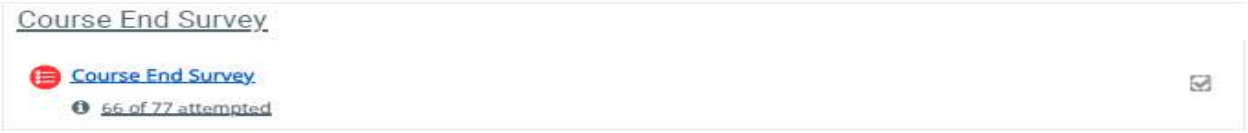
- Exp. No. 01: 1D Bar Element_Structural Linear Analysis
- Quiz Exp. No. 01
  - 66 of 77 attempted
- Exp. No. 01
- Exp. No. 02
- Exp. No. 03
- Exp. no. 04
- Exp. No. 05
- Exp. No. 06
- Exp. No. 07
- Exp. No. 08
- Student Activity 2: Case study on analysis mechanical component using ANSYS

NPTEL/Online Courses

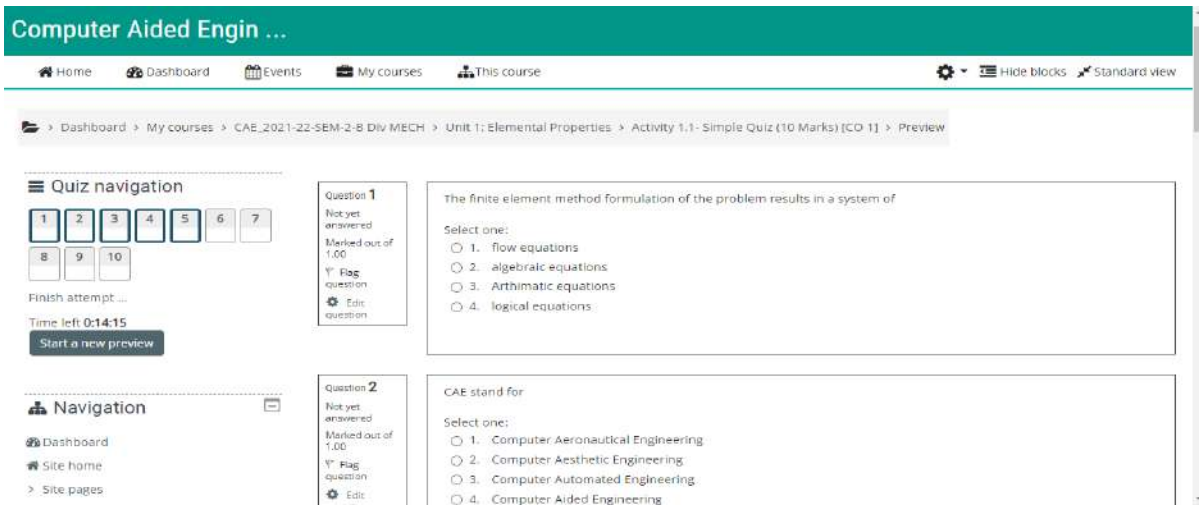
- NPTEL Course_Finite Element Method

- Udemy Course_Ansys Workbench - Analysis Training Program





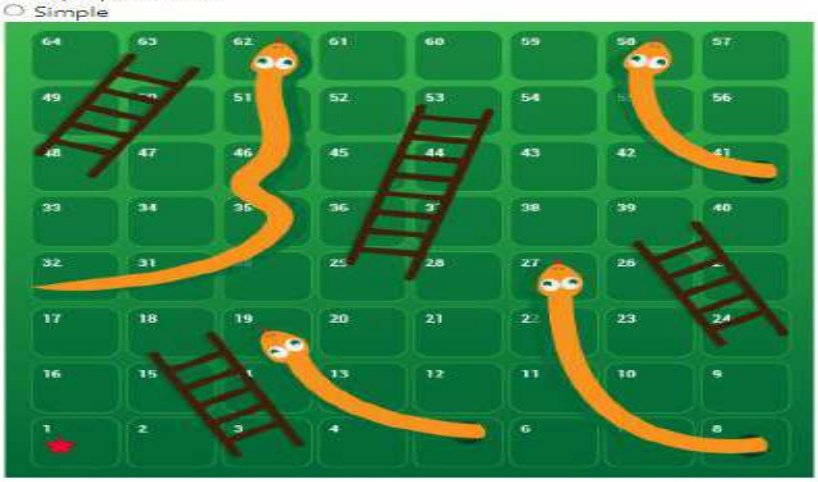
Activity 1: Multiple choice questions quiz



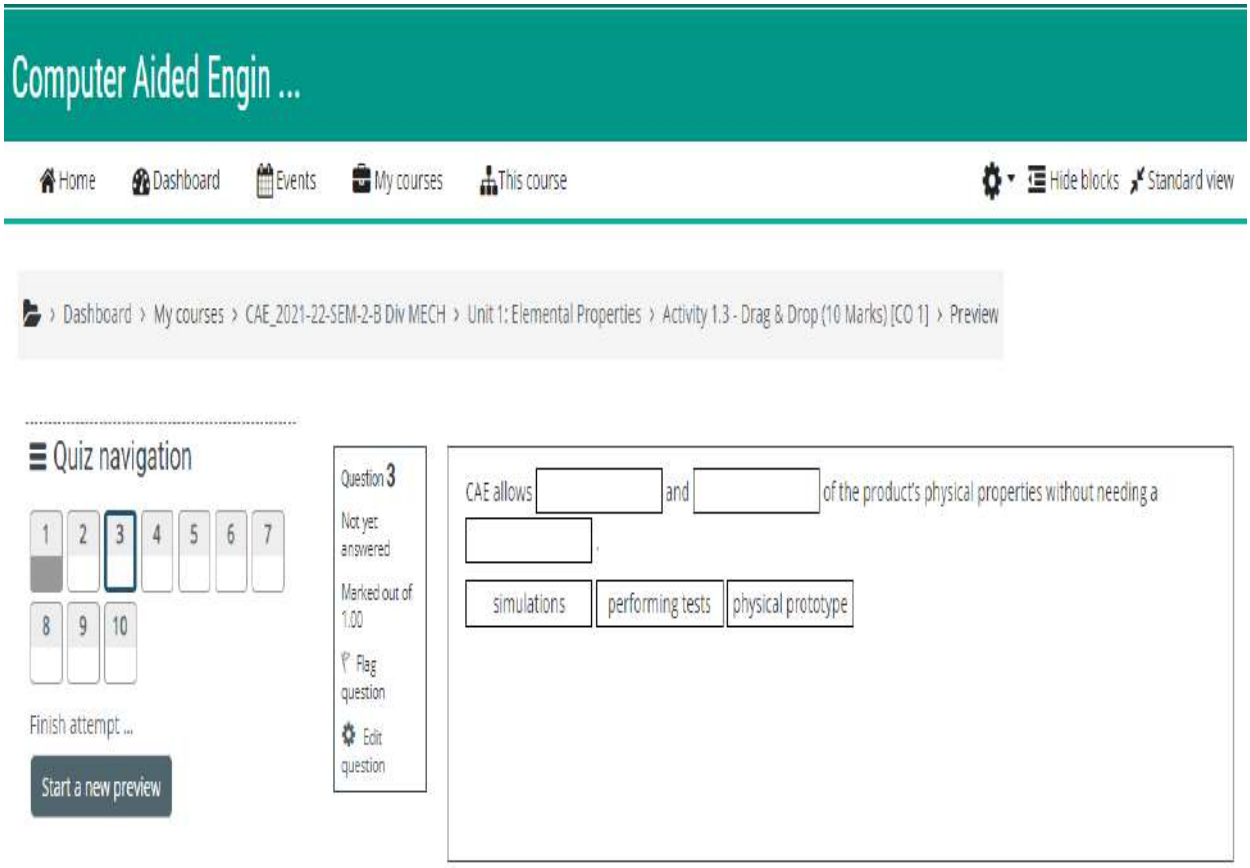
Activity 2: Game Pedagogy (Snakes & Ladder quiz)

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

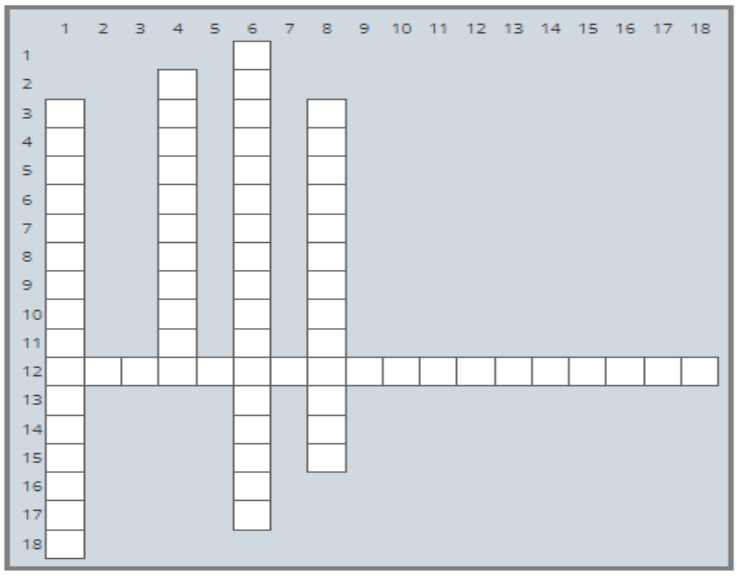


Activity 3: Game Pedagogy (Drag & Drop quiz)



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
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Website : www.jspmjscoe.edu.in

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

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

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 - Progrmme 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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FOUNDER SECRETARY

Dr. Rajendra D. Kanphade
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]

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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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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.Mane
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 Mainenance 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

JSPM'S SPPU Pune Id. No. PU/PN/ENGG/199/(2004) Jayawantrao Sawant College of Engineering

Principal
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Hadapsar, Pune - 28