

# PO, PEO, PSO and CO of (Mechanical Engineering)

Amindusiyh CoD, ME



### Program educational objectives of B.Tech (Mechanical Engineering)

- I. To prepare students for successful careers as mechanical engineers in organizations that meet the needs of Indian and global/multinational industrial/research establishments.
- II. To train students with a wide spectrum of scientific and engineering courses so that students could comprehend, analyze, design and create products and services that address real life problems, which are efficient and cost effective.
- III. To inculcate in students a professional and ethical attitude, impart effective communication skills and ability to work in teams with multidisciplinary approach, be part of and interact with professional bodies so as to resolve engineering issues of social relevance.
- IV. To provide students with an academic environment that fosters excellence, leadership, yearning to pursue higher studies and passion for lifelong learning so as to have a successful professional career.

#### Programme Outcomes of B.Tech

- I. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- II. An understanding of professional and ethical responsibility.
- III. An ability to use modern engineering techniques, skills, and computing tools necessary for engineering practice
- IV. Communicate effectively among engineering community, being able to comprehend andwrite effectively reports, presentation and give / receive clears instructions.

#### Programme Specific Outcomes (B.TECH)

- I. To apply the concepts of material science and engineering, computer aided engineering, thermal engineering and manufacturing technologies for design, development, analysis and maintenance of mechanical systems or processes.
- II. To work as a professional or as an entrepreneur by applying mechanical engineering principles and management practices

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## Learning objectives of M.Tech

- I. A commitment to lifelong learning, quality and continuous improvement through the clear ability to assume increasing levels of technical or management responsibility II. To ability to drive the design of manufacturable products ,design effective and efficient
- new production process and improve the performance of existing operation
- III. To develop the effective technical communication
- IV. Leadership and Participation in teams that act as change agents and innovators in Product
- design and manufacturing related organization

### Programme Outcomes of M.Tech

- Apply advanced level Knowledge, techniques, skills and modern tools of Production Ι. Engineering
- Develop management control System to Provide the right kind of assistance in financial planning ,cost analysis,and production Planning for the physical distribution of goods and II. service s.
- Function on multidisciplinary teams ,working cooperatively, respectfully and responsible III. as a member of a team.
- Identify ,formulate, and solve industrial Productivity related problems using advanced IV. level computing techniques

# Programme Specific Outcomes (M.Tech)

Graduates should be able to handle research Problems and Write Dessertation An ability to apply knowledge and skill of various approaches in manufacturing technology and automation ,for solving complex Problem

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I.

II.



Participation         Colo         Apply/develop solutions or to 00 recercipation of the 00 recercipation of					Detail Of Course Outcomes
Note         Note <th< td=""><td></td><td></td><td></td><td>- 10</td><td>with in the areas of Design and simulation in Mechanical Engineering</td></th<>				- 10	with in the areas of Design and simulation in Mechanical Engineering
Number         Note         Rest         Rest <threst< th="">         Rest         Rest         <t< td=""><td></td><td>0</td><td>CO1 APF</td><td>levelop solutions or to do resea</td><td>archine and anolying computer software and hardware to mechanical design and manufacturing fields.</td></t<></threst<>		0	CO1 APF	levelop solutions or to do resea	archine and anolying computer software and hardware to mechanical design and manufacturing fields.
Number         Numer         Numer         Numer <td>dvanced Computer</td> <td>ME501</td> <td>co2 Ha</td> <td>abilities and capabilities in development</td> <td>Ploping and application of their work</td>	dvanced Computer	ME501	co2 Ha	abilities and capabilities in development	Ploping and application of their work
Marcel Res         No. 201	Manufacturing		CO3 De	n and validate technological solu	Autions to demner provident
Math         Math <thmath< th="">         Math         Math         <thm< td=""><td>and the second s</td><td></td><td>CO1 W</td><td>methodically, the sequence of</td><td>f operations of simple workprece</td></thm<></thmath<>	and the second s		CO1 W	methodically, the sequence of	f operations of simple workprece
No.         No. <td>Na Fixture and Die</td> <td>NAE 503</td> <td>cO2 ld</td> <td>fy and select locating and clam</td> <td>nping points on work-piece.</td>	Na Fixture and Die	NAE 503	cO2 ld	fy and select locating and clam	nping points on work-piece.
Note of the second se	Design	MIL 303	-	in accembly of ligs and fixtures of	s on simple work-piece
Normal         Normal<		Contraction of the second	601	erstanding and formulation of r	research provent
Note of the second se	Research			lyze research related informatic	ion.
Note of the second se	Methodology and IPR	MAT524		derstand that today's world is co	controlled by Computer, Information Technology, but tomorrow work
Output Image: 1000 Image: 10000 Image: 10000 			CO3	tion and validate technological	I solutions to defined problems and communicate clearly and effectively to the effect of manufacturing fields.
Number         Numer         Numer         Numer <td>Computer Aided</td> <td>ME 505</td> <td>C01</td> <td>Willies and canabilities in de</td> <td>developing and applying computer solution</td>	Computer Aided	ME 505	C01	Willies and canabilities in de	developing and applying computer solution
Note The second secon	Engineering Lab		CO2	e abilities and capacity and secribe tool design methods and	id punch and die manufacturing
Constrain         Version         Version         Additional production of the second			CO1	chniques.	and gages; classify various cutting tools and gages and identify their nonincidential
Note of the second se	Cutting Tool Desig	m ME 507	CO2	and the second se	a lathe grinding, welding;
Note:         Note: <t< td=""><td></td><td>tin an an a</td><td>соз</td><td>entify fixtures and cutting tools</td><td>s for NC machine tools. of fluid flow with reference to lubrication.</td></t<>		tin an an a	соз	entify fixtures and cutting tools	s for NC machine tools. of fluid flow with reference to lubrication.
Notice of the second			C01	Contraction of the second second second	to wie and hydrostatic lubrication.
Not-Not-Note         Note:         Out:	In duranial Tribolo	MESO9	coz	analyze mathematical approach	the state of different working conditions and describe different tribological measures.
Not-Not-Note         Note:         Out:	Industrial Tribbio	-		Illustrate the behavior of tribolo	logical components subjected to dimension management of machine tools.
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Note Output         No.         No. <th< td=""><td>Machine Tool D</td><td>esign ME51</td><td>1 02</td><td>To gain the knowledge of desig</td><td>ign of gear boxes a lead out trends required as per the applications.</td></th<>	Machine Tool D	esign ME51	1 02	To gain the knowledge of desig	ign of gear boxes a lead out trends required as per the applications.
No.10         NO.20         Constrained Constrained Network         NO.20         Constrained Constrain			CO3	Ability enhancement to adopt To realize the importance of si	significance of quality
Control         Cond         Order for events were consistence to use and one of the second se		ME51	al al start	Manage quality improvement	r teams
Mathem         Math         Gal         Methempoly and particular disciplination of the set of second second and basis respect.           Provide Particular Second Partentecond Particular Second Particular Second Partentecon	Control		CO3	Identify requirements of quant	ts of mechatronics system and its representation with a sADC, DAC, digital I/O
Induction of Inclusion of Inclusio	Mechatronics	MES	15 CO2	Understanding the concept of Development of PLC ladder p	If signal processing interesting of the system programming and implementation of real life system programming and implementation of real life system a spectra system of the system of
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Medge enclose         M32         Out         Industry week and a second a sec	Industrial Syst			Understand the concept of g	good postures and less exertion and better iteration
Table Number         Note	Methods of	R ME	519	the designed the concept how	ow workstation becomes more efficient
Manufactor System         Missa         Qual Cost (Missa         Missa         Missa         Missa         Missa         Missa	Ergonomics	Section of Late	CO2	Identify various workstation	ns, system support equipments.
Optimization         Notation         Notation of the second secon		M	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Note:         Note: <th< td=""><td></td><td>ing in</td><td></td><td>Identify hardware and sorth</td><td>ding and joining processes and its defects.</td></th<>		ing in		Identify hardware and sorth	ding and joining processes and its defects.
Cathle Process         Col:         Understand allow allow plate deformation during forming processes.           Metal Forming         M500         Col:         Processing with the basic knoeledge on fundamentals of metal forming processes.           Mini project with main processes         M500         Col:         Processing for source focuses on implementation of various real two projects           Mini project with main processes         M500         Col:         Understand and analyze foundry practices its pattern making, mole making, core making and inspection of defects           Metal Cuting         M500         Col:         Understand afferent plates encloing processes, and to defects           Metal Cuting         M510         Col:         To understand afferent plates encloing processes, and to defects           Industrial maximum         M510         Col:         To understand blocks of back industrial automaker, orgenesses.           Industrial fragement         M510         Col:         To understand blocks of back industrial automaker, orgenesses.           Industrial inspection         M511         Col:         To understand blocks of back industrial automaker.           Metal Cuting         M511         Col:         To understand the encoders to lock pate circum, back knowledge of robotics.           Matterial Inspection         M512         Col:         To understand understand underenses.           Matterin	in the We	alding and	Particular Constantion	and the second of the department	
Meta Forming         MCD         COLD FOR Column Technical Column Technin Technin Technical Column Technical Column Technical Column Te	Casting Pro	cess		Understand about advance	e welding process
Mill project with membra         MrSGE         Q.Q.I         Niccourse focuses on implementation of various real time project multiple interval of the project state i			C	To understand various plas	Succession and the second seco
Instance         No.0000         Outlet stand and smalter foundry practices line partenumme.           Modern Welding and Casting Process Lab         MESOP         CO2         Understand different biastic molding processes.           Casting Process Lab         MESOP         CO3         Understand different biastic molding processes and its defects           Metal Cutting         MESOP         CO3         On orderstand Structuo of Plastic and Thermoforming.           Industrial Autominal         MESOP         CO3         Describe working of various blocks of basic industrial automation system.           Industrial Autominal         MESOP         CO3         Describe working of various blocks of basic industrial automation system.           Industrial Autominal         MESOP         CO3         Renetly techniques to minimize the errors in measurement           Industrial Autominal Rispection         MESOP         CO3         Renetly techniques to minimize the errors in measurement.           INVERID MANUFACTURING         MESOP         CO3         Renetly technique to adapt to changing needs for professional advancement.           Integreneurship         MESOP         CO3         Renetly to the basic performance indicators of entrepreneurial scivity.           Product Design & MESOP         CO3         Statistics in engineering         Statistics in engineering           Reneroleopinent         MESOP         C	Metal Forr	ming M		To acquaint with the basic	ic knoeledge on fundamentals of metal formage
Instance         No.0000         Outlet stand and smalter foundry practices line partenumme.           Modern Welding and Casting Process Lab         MESOP         CO2         Understand different biastic molding processes.           Casting Process Lab         MESOP         CO3         Understand different biastic molding processes and its defects           Metal Cutting         MESOP         CO3         On orderstand Structuo of Plastic and Thermoforming.           Industrial Autominal         MESOP         CO3         Describe working of various blocks of basic industrial automation system.           Industrial Autominal         MESOP         CO3         Describe working of various blocks of basic industrial automation system.           Industrial Autominal         MESOP         CO3         Renetly techniques to minimize the errors in measurement           Industrial Autominal Rispection         MESOP         CO3         Renetly techniques to minimize the errors in measurement.           INVERID MANUFACTURING         MESOP         CO3         Renetly technique to adapt to changing needs for professional advancement.           Integreneurship         MESOP         CO3         Renetly to the basic performance indicators of entrepreneurial scivity.           Product Design & MESOP         CO3         Statistics in engineering         Statistics in engineering           Reneroleopinent         MESOP         C	Mini proje	act with	NEEDE 0	This course focuses on im-	nplementation of various real time projects
Vector         Vector         Value         <			MESSO	Understand and analyze f	foundry practices like patient manage
Cating Process Lab         Co3         Understand different Weiking and planing processes and its defects           Metal Cutting         ME5D         Co1         To understand Extrusion of Plastic and Thermoforming.           Industrial         ME51         Co2         To acquaint with the basic knooledge on fundamentals of metal forming processes.           Industrial         ME51         Co1         To understand the application of fluid power to logic gate circuits, basic knooledge of robotics           Metrology & Industrial Inspection         ME51         Co1         To understand the enorge polication of fluid power to logic gate circuits, basic knooledge of robotics           Metrology & Industrial Inspection         ME51         Co1         To understand the enorge of clearance and tolerances.           VERDID MANUFACTURING         ME518         Co1         To solve complex manufacturing problems for aignificant technological and accietal development.           Product Design & MExtrology & Product Design & Co1         Finage in lifelong learning to adapt to changing needs for profesional advancement.           Statistics & Reliability         ME518         Co1				Understand different plas	astic molding processes,
Netal Cutting         NES10         COL         To understand Extrusion of Plastic and Thermoforming.           Industrial         NES10         COL         To acquaint with the basic knowledge on fundamentals of metal forming processes.           Industrial         NES512         COL         Describe working of various blocks of basic industrial automation system.           Industrial         NES512         COL         To understand the application of fluid power to logic gate circuits, basic knowledge of robotics           Netrology & Intrology & MetS16         ME512         COL         To understand the concept of clearance and tolerance.           Netrology & MURBID         ME514         COL         To solve complex manufacturing problems for significant technological and societal development.           NURBID         ME516         COL         Forumetraing to adapt to chaining needs for professional advancement.           Nutrepreneurship         ME516         COL         Entrepreneurship         COL         Evaluate the basic performance indicators of entrepreneurship.         Evaluate the basic performance indicators of entrepreneurship.         COL         Students will familiar with the design protection and intellectual property.           Studics & Reliability         ME527         COL         Forumetrain buy is through various cost models.           Studics & Reliability         ME528         COL         Col understand ther cole of statist	Modern V Casting P	vocess Lab	-	Understand different Wr	/elding and joining processes and its defects
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Industrial Automation         ME522 ME         CO1 CO2         Describe working of various blocks of basic industrial eccuration and point of fluid power to logic gate circuits, basic knowledge of robotics           Metrology & Industrial Inspection         ME514 ME514         CO1 CO2         Identify techniques to minimize the errors in measurement           VERID MANUFACTURING         ME516 CO2         CO1 To understand the concept of clearance and tolerances.         CO1 CO2         To solve complex manufacturing problems for significant technological and societal development.           MENUFACTURING         ME516 CO2         CO1 Engage in lifelong learning to adapt to changing needs for professional advancement.           Entrepreneurship Development         ME518 CO2         CO1 Evaluate the basic performance indicators of entrepreneurial activity.           Product Design & Reliability Ingineering         ME 520 CO2         CO1 CO2         Analyze the ousles only and the cole of statistics in engineering.           Statistics & Reliability Ingineering         ME 522 CO2         CO1 CO2         Statistics in engineering.           Statistics & Reliability Ingineering         ME 522 CO2         CO3 CO2         To understand how the analysis of variance is used to analyze the data from these experiments.           Statistics & Reliability Ingineering         ME 522 CO2         CO3 CO3         Analyze factors influencing network design		utting	ME510		the knowledge on fundamentals of metal forming processor
Industrial Automation         ME512 ME         CO1         Industrial operation of fluid power to logic gate circuits, basic knowledge of robotics           2         Metrology & Industrial Inspection         ME514         CO2         To understand the application of fluid power to logic gate circuits, basic knowledge of robotics           2         Metrology & Industrial Inspection         ME516         CO2         To understand the concept of clearance and tolerances.           ANNUFACTURING         ME 516         CO2         Engage in lifelong learning to adapt to changing needs for professional advancement.           Entrepreneurship         ME518         CO1         Engage in lifelong learning to adapt to changing needs for professional advancement.           Product Design & Development         ME518         CO1         Students will familiar with the design protection and intellectual property.           Statistics & Reliability         ME 520         CO2         Carry out cost and benefit analysis of variance is used to analyze the data from these experiments.           Statistics & Reliability         ME 520         CO1         To understand the role of statistics in engineering           Statistics & Reliability         ME 520         CO1         To understand the role of statistics in engineering           CO2         To understand the role of statistics in engineering         CO3         To understand therole of statistics in engineering	Metal C	uumB		Describe working of var	arious blocks of basic industrial determined
Image: Product Design & NE 520         CO1         Identify techniques to minimize the errors in measurement.           V         HytRiD ME51A         CO2         To understand the concept of clearance and tolerances.           HYBRID MANUFACTURINO         ME 536         CO2         Engage in lifelong learning to adapt to changing needs for professional advancement.           Entrepreneurship         ME 51A         CO1         Analyze the business environment in order to identify business opportunities.           Product Design & NE 52A         CO1         Evaluate the basic performance indicators of entrepreneurial activity.           Development         ME 520         CO2         Carry out cost and benefit analysis through various cost models.           Statistics & Reliability Engineering         ME 522         CO1         To understand the role of statistics in engineering.           Statistics & Reliability Engineering         CO1         Analyze factors influencing network design.         ON		ial	herran		the set fluid nower to logic gate circuits, basic knowledge of robotics
Netrology & Industrial Inspection         NE514         CO1         To understand the concept of clearance and tolerances.           V         NRBID MANUFACTURING         NE 516         C02         To solve complex manufacturing problems for significant technological and societal development.           Problem         ME 516         C02         Engage in lifelong learning to adapt to changing needs for professional advancement.           Entrepreneurship         ME 518         C01         Analyze the business environment in order to identify business opportunities.           Product Design & Development         ME 520         C01         Students will familiar with the design protection and intellectual property.           Statistics & Reliability         ME 522         C01         To understand how the analysis through various cost models.           Statistics & Reliability         ME 522         C01         To understand how the analysis of variance is used to analyze the data from these experiments.           Reliability         ME 522         C01         To understand how the analysis of variance is used to analyze the data from these experiments.			ME512	D2 To understand the app	plication of the provision measurement
2         Image: manual state in the s				01	
2         Image: manual state in the s	Metro	logy & rial Inspectio	ME514	02 To understand the cor	Incept of clearance and tolerances.
HYBRID MANUFACTURING       ME 516       Co2       Engage in lifelong learning to adapt to changing needs for professional advancement.         Entrepreneurship       ME518       Co1       Analyze the business environment in order to identify business opportunities.         Entrepreneurship       ME518       Co2       Evaluate the basic performance indicators of entrepreneurial activity.         Product Design & Development       Co1       Students will familiar with the design protection and intellectual property.         Statistics & Reliability Engineering       ME 520       Co2       Carry out cost and benefit analysis through various cost models.         Statistics & Reliability Engineering       ME 522       Co3       To understand how the analysis of variance is used to analyze the data from these experiments.         Binneering       Co3       Analyze factors influencing network design       Co3				To solve complex mai	anufacturing problems for significant common
Image:	HYBR		ME 516	CO2 Engage in lifelong lea	earning to adapt to changing needs for professional advancement.
Entrepreneurship         ME518         CO1         Evaluate the basic performance indicators of entrepreneurial activity.           Product Design & Development         ME 520         Co1         Students will familiar with the design protection and intellectual property.           Statistics & Reliability         ME 520         Co1         Co1         Co1         Co1         Co1         Co1         Co1         Statistics in engineering           Statistics & Reliability         ME 522         Co2         To understand how the analysis of variance is used to analyze the data from these experiments.         Bhao	MAN	OFACTORING	-	Analyze the business	ss environment in order to identify determined and the second s
Product Design & Development         CO1         Students will familiar with the design protection and winners           Development         CO2         Carry out cost and benefit analysis through various cost models.           Development         CO2         Carry out cost and benefit analysis through various cost models.           Statistics & Reliability Engineering         CO3         To understand the role of statistics in engineering           CO2         Co3         To understand how the analysis of variance is used to analyze the data from these experiments.           Engineering         CO3         To understand how the analysis of variance is used to analyze the data from these experiments.           Engineering         CO3         Co3         To understand how the analysis of variance is used to analyze the data from these experiments.           Engineering         CO3         Co3         To understand how the analysis of variance is used to analyze the data from these experiments.           Engineering         CO3         Analyze factors influencing network design         Engineering		enreneurshin	ME518	001	Tempora indicators of entrepreneurial activity.
Product Design & Development     ME 520 Reliability     CO2     Carry out cost and benefit analysis through various cost models.       Statistics & Reliability Engineering     ME 522 CO2     To understand the role of statistics in engineering       CO2     CO3     To understand how the analysis of variance is used to analyze the data from these experiments.       Engineering     CO3     To understand how the analysis of variance is used to analyze the data from these experiments.       CO3     Co3     To understand how the analysis of variance is used to analyze the data from these experiments.	Entre	epreneuranip		CO2 Evaluate the basic pe	liar with the design protection and intellectual property.
Statistics & Reliability Engineering         ME 522 CO2         Coll analysis of variance is used to analyze the data from these experiments.         Bhao           CO2         To understand how the analysis of variance is used to analyze the data from these experiments.         Bhao           CO2         To understand how the analysis of variance is used to analyze the data from these experiments.         Bhao	Prov	duct Design 8	A		
Statistics & Reliability Engineering       ME 522       CO2       To understand how the analysis of variance is used to analyze the data from these experiments.       Bhao         CO2       To understand how the analysis of variance is used to analyze the data from these experiments.       Bhao         CO2       To understand how the analysis of variance is used to analyze the data from these experiments.       Bhao         CO2       CO2       Analyze factors influencing network design       CO2	Dev	relopment	ME 520	CO2 Carry out cost and I	relie of statistics in engineering
Engineering CO1 Analyze factors influencing network design		tistics &		CO1 To understand the r	levered to analyze the data from these experiments.
Engineering CO1 Analyze factors influencing network design CO1 Analyze f	Rel	liability	ME 52	CO2 To understand how	w the analysis of variance is used to analyse and Bhago
Supply Chain Management MES24 CO2 Develop mathematical models to represent curves and sufference of the particular of the supply chain of the supe	Enj	gineering		Analyze factors infi	ifluencing network design
Management Masse un for Althe (CoD, Mechaniclerge) VDA. Vijay DLine (Draw UIGT)		unply Chair		Develop mathem	natical models to represent curves and surfaces
Amurchisty (CoD, Mechaniclerg!) VDA. Vijay DLine (Draw UIGT)	SI	lanagement	ME52		E stit. Jalanana S
Amurchisty (GD, Mechanicles A) (Draw UIGT) A1153			for	T	A log and a
Amurchist (Cop/Mechine (Dour UIGT)				ters ,	Dr. What and Bill Dr. Whay Du & ANS
			Am	inclusion (C	(Dear UIGT)

		соз	Model engineering components using solid modeling techniques
C		CO1	To understand the basic concepts and theories of the production management.
luctions & ME520 rations ME520 ragement	IE526	CO2	To apply operations management concepts and their influence on business decisions.
		соз	To expand individual knowledge of operations management principles and practices.
			To understand the need of problem formulation, literature review.
rtation-I N	AE601	c01	To understand the format of writing research paper and thesis report
		CO2	Understand the basic concepts and properties of Material
		CO1	Understand about material fundamental and processing.
erials ME	ME603	CO2	Understand about material understanding of the second seco
		соз	Detect the defects in crystal and its effect on Gyner Provide and the second se
Conventional	ME605	CO1	Familiarity with various thermal energy based non conventional machining processes.
hining Processes	MEBUS	coz	Familiarity with various themail energy occurs of the second seco
		C01	
N NUFACTURING	ME 609	co2	Developing an understanding of basic principle of lean management strategy
ustrial Safety	ME611	c01	The student will be able to identify and solve complex engineering principles.
gineering		c01	Some understanding of types, manufacturing processes, and applications of composite materials
		co2	Ability to analyze problems on macromechanical behavior of lamina
mposite Materials	ME613	1	Ability to analyze problems on micromechanical behavior of lamina
		CO3	Ability to analyze problems on macromechanical behavior of laminate
	<u> </u>	CO4	Ability to analyze provention of management of analyze provention of quality. To realize the importance of significance of quality.
uality Engineering	ME615	<b>CO1</b>	
uanty Engineering		CO2	<ul> <li>Identify requirements of quality improvement programs</li> <li>The development of the project will holistically take into account five pillars – institutional, political/policy, social, technical and economic/financial</li> </ul>
aste To Energy echnology	EE611	CO1	
		CO1	Students will demonstrate knowledge of data analytics
		CO2	Students will demonstrate the ability of think critically in making decisions based on data and deep analytics
Susiness Analytics	COM23	13 CO3	Students will demonstrate the ability to use technical skills in predicative and prescriptive modeling to support business decision-making.
		C04	Students will demonstrate the ability to translate data into clear, actionable insights
		con	Students will demonstrate knowledge of data analytics.
		co	where the ability of think critically in making decisions based on data and deep analytics.
Internet of Things	CSE61	1	If the subject the ability to use technical skills in predicative and prescriptive modeling to support business decision-maxing.
		00	where the ability to translate data into clear, actionable insights.
		co	Students will demonstrate the second se
	11 1985	co	
ENGLISH FOR RESEARCH PAPER	ENGO	01	
WRITING		cc	
		CC	4 Ensure the good quality of paper at very first-time submission
DISASTER	EVSS	01 CI	trisure in e good quarky or reference of Disaster Risk Reduction and the relation between vulnerability, disasters and risk reduction.     To gain understand approaches of Disaster Risk Reduction and the relation between vulnerability, disasters and risk reduction.
MANAGEMENT		C	11       To gain understand opposition         11       Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi In Indian politics         11       Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi In Indian politics         12       Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi In Indian politics
CONSTITUTION OF			<ul> <li>Discuss the growth of the demand for Christian material</li> <li>Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India</li> <li>Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India</li> <li>Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India</li> <li>Discuss the circumstances surrounding the foundation of the Congress Socialist Party [CSP] under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections the social reforms the ball of Constitution.</li> </ul>
	UF LAW	/001	Discuss the circumstances surrounding the foundation of the Congress Socialist Party (LSF) under a duit suffrage in the Indian Constitution.
			Discuss the nassage of the Hindu Code Bill of 1956.
1		The state	Set of the sections are being used by teachers in formal and informal classrooms in developing countries
			the effectiveness of these pedagogical practices, in what conditions, and with what population of control
PEDAGOGY STL	DIES ED	1001	What is the evidence on use encountering of the evidence of th
S AND REAL PROPERTY.	AT 1 1 2 2 1 2 1 2 1 2	The Contraction of the	How can teacher education (curriculum and practiculity and education)

Aminchisigh (CoD, Mechanical (578.)



1				gineering components using solid modeling tachniques								
		CO3		tand the basic concepts and theories of the production management.								
	100	c01	To unders	an existing a management concepts and their influence on business decisions.								
	ME526	CO2	Sector States									
gement		соз	To expan	d Individual knowledge of operations management principles and practices.								
		C01	a guarde au	To understand the need of problem formulation, literature review.								
tation-l	ME601	C02	To under	rstand the format of writing research paper and thesis report								
		C01	Understa	and the basic concepts and properties of Material								
	ME603	CO2	Underst	and about material fundamental and processing.								
rials Technology	Millooo	C03		1.6 + Learnered and Proeffect on crystal properties.								
			Underst	tand the concept of machining the hard material using chemical energy and electrochemical elergy.								
Conventional hining Processes	MEGOS	C01	Familia	rity with various thermal energy based non conventional machining processes.								
mining Processor		CO2										
		CO1	-									
nputer Alded cess Planning	ME 607	C02	100 100 100 100 100 100 100 100 100 100									
		C03	Toun	To understand how lean management today represents a profound change in the competitive business culture.								
AN	ME 609	C01	a to all a set									
ANUFACTURING		CO2	Develo	oping an understanding of basic principle of lean management strategy								
ssertation-II	ME602											
		CO1										
ntroduction To Run echnology &	al CE611	C02										
community Development		C03										
ndustrial Safety			The	student will be able to identify and solve complex engineering principles.								
Engineering	ME611			re understanding of types, manufacturing processes, and applications of composite materials								
		C01		te understanding of View								
Composite Materia	als ME61	c02										
composite materia		CO3		lity to analyze problems on micromechanical behavior of lamina								
		CO4	Abi	lity to analyze problems on macromechanical behavior of laminate prealize the Importance of significance of quality.								
en charca		co										
Quality Engineerin	ng ME61	co	z Id	entify requirements of quality improvement programs								
Waste To Energy	EE61	1 CO		entify requirements of quarky inspectively take into account five pillars – institutional, political/policy, social, technical and economic/financial								
Technology	Carles Charl	CC	1 St	udents will demonstrate knowledge of data analytics								
		c	2 St	tudents will demonstrate the ability of think critically in making decisions based on data and deep analytics								
Business Analyti	cs CON	1233 -	)3 SI	tudents will demonstrate the ability to use technical skills in predicative and prescriptive modeling to support business decision-making.								
		C	)4 S	tudents will demonstrate the ability to translate data into clear; actionable insights								
-			51	students will demonstrate knowledge of data analytics.								
		-		Students will demonstrate the ability of think critically in making decisions based on data and deep analytics.								
Internet of Thir	ugs CSE	611		Students will demonstrate the ability to use technical skills in predicative and prescriptive modeling to support business decision-making.								
		-	03	Students will demonstrate une entry of the standard of the sta								
and the second			:04	Students will deliveration and an and and								
			:01									
Software Proje Planning &	C	E613	c02									
Management			соз									
			C01	. Understand that how to improve your writing skills and level of readability								
ENGLISH FOR			CO2	Learn about what to write in each section								
RESEARCH PA	APER E	NG001	соз	Understand the skills needed when writing a Title								
WILING			CO4	Ensure the good quality of paper at very first-time submission								
DISASTER		EV\$501	C01	To a the understand approaches of Disaster Risk Reduction and the relation between vulnerability, disasters and risk reduction.								
MANAGEME	NT	E42301		the depart for civil rights in India for the bulk of Indians before the arrival of Gandhi in Indian pointics								
			CO1	Discuss the growth of the demand to entry and the demand to entry and the demand of the demand to entry and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the proposal of direct elections through adult sufficiency and the demand of the demand of the proposal of direct elections through adult sufficiency and the demand of								
CONSTITUT	ION OF	LAW001	C02	Discuss the circumstances surrounding the foundation of the Congress Socialist Very (LSF) uncertainty								
INDIA			соз	Indian Constitution								
I COLORADO AND			CO4	Discuss the passage of the Hindu Code Bill of 1956.         What pedagogical practices are being used by teachers in formal and informal classrooms in developing countries								
		A STATE	CO1	What pedagogical practices are being used by teachers in torina and a state of the								
			A Statistics									
PEDAGOG	Y STUDIES	EDU001	coz	What becauge we provide the effectiveness of these pedagogical practices, in what conditions, and with what population of learners								
PEDAGOG	YSTUDIES	EDU001	CO2 CO3	What is the evidence on the effectiveness of these pedagogical practices, in what continuous, and the second practices in what continuous, and the second practices in what continuous, and the second practices in what continuous and the second practice pedagogy? How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy? How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy? How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy?								

ATT 60, Mechanical

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	Course Code		Detail Of Course Outcomes
		CO1	Apply knowledge of mathematics, science for engineering applications
RENGTH OF	ME201-19	CO2	Design and conduct experiments, as well as to analyze and interpret data
MATERIALS-I		соз	Identify, formulate, and solve engineering problem
		CO1	Apply various laws of thermodynamics to various processes and real systems.
M . HING	ME203_19&	CO2	Apply the concept of Entropy, Calculate heat, work and other important thermodynamic properties for various ideal gas processes
THERMODYNAMICS I	204	соз	Estimate performance of various Thermodynamic gas, power cycles and gas refrigeration cycle and availability in each case
		C01	Understand and analyze foundry practices like pattern making, mold making, Core making and Inspection of defects
Manufacturing	ME205-19	CO2	Understand different plastic molding processes, Extrusion of Plastic and Thermoforming •
Technology -I	(Card	СОЗ	Understand different Welding and joining processes and its defects
		CO1	Identify mechanisms in real life applications.
MECHANICS OF	MF206-19	co2	Perform kinematic analysis of simple mechanisms.
MACHINES I		C02	Determine moment of inertia of rigid bodies experimentally
		C03	Solve higher order linear differential equations and apply to modeling and analyzing mass spring systems
Engineering	MAT205	co2	Solve various partial differential equations such as wave equation, one and two dimensional heat flow equations
Mathematics-III	IVIA1205	CO2	Perform vector differentiation and integration, analyze the vector fields and apply to fluid flow problems
		 	Draw the machine elements including keys, couplings, cotters, riveted, bolted and
			welded joints Understand the representation of materials used in machine drawing.
MACHINE DRAWING	ME207-19		Construct an assembly drawing using part drawings of machine components
	ool oo waxaa dadha oo ta	CO3	Describe the behavior of materials upon normal external loads.
SRENGTH OF MATERIALS-I ( LAB)	ME209-19	CO1	Predict the behavior of the material under impact conditions.
MATERIALS-I ( DAD)		CO3	Recognize the mechanical behavior of materials Interpret foundry practices like pattern making, mold making, Core making and
Manufacturing Lab -1	ME211-1	9 1002	Inspection of defects.
		CO3	Select appropriate Manufacturing Processing to Manufacture any component
Applied Thermodynamics - 11	ab ME213-1	Contraction of the second s	Demonstrate the performance of internal combustion engines and air compression.
		C01	Determine the resistance and deformation in members subjected to axial, flexural and torsional loads.
SRENGTH OF	ME202-1	.9 CO2	Evaluate principal stresses, strains and apply the concept of failure theories for design
MATERIALS-II		соз	Analyze and design thin, thick cylinders and springs.
		CO1	Estimate thermodynamic properties of gas mixtures.
APPLIED	ME204-	19 CO2	Identify the models to estimate the properties of real gases.
THERMODYNAMICS	•	соз	Analyse reactive and non-reactive gas mixtures using the concepts of statistical thermodynamics and kinetic theory of gases.
		C01	the line and properties of Material.
Manufacturing Technology -II	ME208-	-19 CO2	Detect the defects in crystal and its effect on crystal properties.
		соз	Select proper metal, alloys, nonmetal and powder metallurgical component for specific requirement
		CO1	the second interpret results.
Environmental Scie	ence EVS10:	1- CO2	. Evaluate local, regional and global environmental topics related to resource use and management.
		cos	Propose solutions to environmental problems related to resource use and management.
			Propose solutions to environmental properties of Material     Understand the basic concepts and properties of Material

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laterial Science and letallurgy	ME210-19	c02	Unde	rstand about material fundamental and processing. ect the defects in crystal and its effect on crystal properties.
		соз	and the second	
		CO1	a start	ents will determine the follower displacement and also able to draw cam profile. 27
Mechanics of Machine- lab	ME212-19	CO2	Carlos Constanting	ent will determine the braking torque value for brakes. 🛛
		соз	STATES AND	ent will able to know about gears and gear trains.
		c01	Illus	trate the various sheet metal forming processes for a specific application.
Manufacturing Process	ME214-19	CO2	Exp	lain the process of making patterns, preparation of sand mould, various special casting processes and casting defects.
		соз		cribe various fusion, friction and special welding processes, soldering and brazing processes.
		c01	Recent Series	nmarize the crystal structure for SC, BCC, FCC and HCP. s.
Material Science and Metallurgy Lab	ME216-19	cO2		Itline the microstructure for pure metals and alloy
Wedningy		CO3	O	oserve the micro structure of heat treated steels
		C01	ap	aluate gear tooth geometry and select appropriate gears for the required plication
MECHANICS OF MACHINES- II	ME305-19	CO2	and the first and	nderstand the gyroscopic effects in ships, aero planes and road vehicles.
WACHINGS	and the second sec	соз		nalyze balancing problems in rotating and reciprocating machinery
		C01	U	Ise of various properties in solving the problems in fluids
Fluid Mechanics	ME301-1	co2	U	se of Bernoulli's equation for solutions in fluids
		соз	. C	Determination of forces drag and lift on immersed bodie
		c01		Inderstand the customers' need, formulate the problem and draw the design pecifications
MACHINE DESIGN -	ME303-1	9 002		Understand component behavior subjected to loads and identify the failure criteria
		co	3	Design keys, cotters, couplings and joints including riveted, bolted and welded joints.
		со	1	Learn the moral issues and problems in engineering; find the solution to those problems.
Human Values and	SSC303	19 CO	12	problems. Learn the need for professional ethics, codes of ethics and roles, concept of safety, risk assessment.
Professional Ethics		СС	)3	risk assessment. Gain exposure to Environment Ethics & computer ethics; know their responsibilities and rights
		cc	<b>)1</b>	Understand the emergence and evolution of Indian Constitution
Constitution of In	dia PIS303	19 00	52	Understand the structure and composition of Indian Constitution
	and the second	c	03	Understand and analyse federalism in the Indian context
		c	01	Estimate the friction and measure the frictional losses in fluid flow.
Fluid Mechanics	LAB ME30	9-19 C	:02	Experiment with flow measurement devices like venturimeter and orifice meter.
right meeting.		-	:03	Predict the coefficient of discharge for flow through pipes.
				To familiarize the students with management of industrial resources and production operations
Industrial trainir undertaken afte	g r 4th ME30	7-19	c02	An ability to utilize technical resources.
SEM		1	соз	An ability to write technical documents and give oral presentations related to the work completed.
			c01	Linderstand the basic lay-out of an automobile.
Automobile	ME3	15	CO2	Understand the operation of engine cooling, lubrication, ignition, electrical and air conditioning systems.
Engineering			соз	Understand the principles of transmission, suspension, steering and braking systems
		-	c01	quantify and analyze the pollution load.
Envionmental	Pollution	313-19	CO2	2. analyze/design of suitable treatment for wastewater
and abatemen	t IVIE		c01	Le stair pollutants
			1005	3. model the atmospheric dispersion of air politicities

(Amutatersigh) GD, Mechanical

		CO1	A CARLES OF	scuss the material handling equipments & their applications.
chanical Handling tem and Equipment	ME315-19	CO2		scuss the different components of material handling systems.
		соз	Contraction of the	udy the mechanism used in material handling equipment
		CO1	A THE REAL PROPERTY	erstand the basic modes of heat transfe
AT TRANSFER	ME302	CO2	C. C. States	npute temperature distribution in steady-state and unsteady-state heat conduction.
	a second a	соз	Und	lerstand and analyse heat transfer through extended surfaces
		C01	Und	lerstand the concepts of principal stresses, theories of failure, stress concentration fatigue loading
achine Design-II	ME304-19	CO2		ign shafts, couplings and gears.
		соз	Ana	alyze the pressure distribution and design journal bearings.
	1	C01	Ana	alyze factors influencing network design
omputer Aided	ME306-19	co2	De	velop mathematical models to represent curves and surfaces.
esign and Ianufacturing		СОЗ	Contraction of the second	odel engineering components using solid modeling techniques.
		-	States She	entify techniques to minimize the errors in measurement
		C01		a tife methods and devices for measurement of length, angle, gear & thread
ndustrial Metrology	ME308-19	CO2		entry metiods and conducts and geometric features of parts. omprehend speed and feed mechanisms of machine tools.
tala di kana ing kana kana kana kana kana kana kana ka		CO3		
		C01	(Charles and a state	stimate heat transfer coefficient in forced convection.
Heat Transfer Lab	ME310-19	) CO2	STORES 1885	stimate the effective thermal resistance in composite slabs and efficiency in pin
		соз	Status State	Measure heat transfer coefficient in free convection and correlate with theoreticalvalues
		C01	F	Recognize the errors associated with measuring instruments
Industrial Metrolog LAB	ME312-1	9 002	CONTRACTOR OF	Calibrate gauges and measuring instruments
		соз		Demonstrate the methods of measurement for various instruments and gauges.
		S	ketch, c	Demonstrate the methods of metropy of metropy of the second secon
Design Software La	b ME316-:	19		
		and a second s		
		con		Develop an understanding on quality management philosophies and
TOTAL QUALITY				frameworks.
MANAGEMENT			,	Adopt TQM methodologies for continuous improvement of quarty?
a state was the	ME371	co		Adopt TQM methodologies for continuous improvement of quality.
	ME371	co	3	Determine the set of indicators to evaluate performance excellence of an organization
			3	Determine the set of indicators to evaluate performance excellence of an organization Understand the role Production Planning and control activities in Manufacturing and Services
Production Plann and Control		c0 c0	3	Determine the set of indicators to evaluate performance excellence of an organization Understand the role Production Planning and control activities in Manufacturing and Services Understand and perform various Inventory Management techniques and apply in real manufacturing scenario
Production Plann		c0 c0	3 1 )2	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures
Production Plann		00 00 00 00 00	3 1 )2	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows
Production Plann	ing ME373	00 00 00 00 00 00 00 00	3 1 )2 )3	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems
Production Plann and Control	ing ME373		3 1 )2 )3 )1	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems         Design the working proportions of hydraulic machines
Production Plann and Control	ing ME373	1-19	3 1 92 93 91 92	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems         Design the working proportions of hydraulic machines         Understand the constructional features of reciprocating pump and to perform test on it for determination
Production Plann and Control	ing ME373 RY ME40	1-19	3 1 92 03 01 02 03	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems         Design the working proportions of hydraulic machines         Understand the constructional features of reciprocating pump and to perform test on it for determination         Conduct experiments on hydraulic turbines and pumps to draw characteristics.
Production Plann and Control	ing ME373 RY ME40	1-19 CC 13-19 CC	3 1 1 2 2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 2	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems         Design the working proportions of hydraulic machines         Understand the constructional features of reciprocating pump and to perform test on it for determination
Production Plann and Control	ing ME373 RY ME40	1-19 CC 13-19 CC 193-19 CC	3 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems         Design the working proportions of hydraulic machines         Understand the constructional features of reciprocating pump and to perform test on it for determination         Conduct experiments on hydraulic turbines and pumps to draw characteristics.
Production Plann and Control	Ing ME373 RY ME40 (Lab ME40	1-19 CC 13-19 CC 13-19 CC	3 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Determine the set of indicators to evaluate performance excellence of an organization         Understand the role Production Planning and control activities in Manufacturing and Services         Understand and perform various Inventory Management techniques and apply in real manufacturing scenario         Demonstrate various Scheduling procedures         Analyze and design free surface and pipe flows         Formulate and solve one dimensional compressible fluid flow problems         Design the working proportions of hydraulic machines         Understand the constructional features of reciprocating pump and to perform test on it for determination         Conduct experiments on hydraulic turbines and pumps to draw characteristics.         Test basic performance parameters of hydraulic turbines and pumps and execute the knowledge in real life situations.

(Aminder sink) CoD, Mechanich

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Dr Ving Changes

	AN DESCRIPTION	СОЗ	Santa Sila	upply the principles of mechanical engineering in real world systems.
		CO1	A	n ability to work in actual working environment.
ustrial Training	ME407-19	coz		In ability to utilize technical resources.
and and and		co		An ability to write technical documents and give oral presentations related to the work completed.
		со	1	Inderstand the decision phases and apply competitive & supply chain strategies.
ANAGEMENT OF	ME411-1		2	Understand drivers of supply chain performance.
PPLY CHAIN		co	)3	Analyze factors influencing network design
han an a				Enumerate principles, strategies and advantages of industrial automation
dustrial Automation			and and a second	Differentiate types of robots and robot grippers.
nd Robotics	ME409-1			Understand the basic components of robots.
		co	03	Understand the basic componente of the basic component
		C	01	
ntroduction to Mechatronics	ME413-	19 C	02	Differentiate between various sensors, transducers and actuators and their applications.
		c	:03	. Relate various signal conditioning units, amplifiers, logic gates and their role in programmable logic controllers.
		C	:01	Apply finite element method to solve problems in solid mechanics, fluid mechanics andheat transfer
Finite element Metho	d ME415	-19	02	Formulate and solve problems in one dimensional structures including trusses, beams and frames.
FINITE Element metho			CO3	and frames. Formulate FE characteristic equations for two dimensional elements and analyze plain stress, plain strain, axi-symmetric and plate bending problems.
			and and a second se	stress, plain strain, an symmetry of vibration in mechanical systems.
			c01	Develop schematic models for physical systems and formulate governing equations of
Mechanical Vibration	ns ME417	7-19	CO2	motion. Understand the role of damping, stiffness and inertia in mechanical systems
			соз	Understand the role of damping, suffices due means Develop mathematical models for flow phenomena.
			CO1	Analyze mathematical and computational methods for fluid flow and heat transfer
Computational Flui	d ME41	9-19	CO2	simulations
Cynamos			соз	Solve computational problems related to fluid flows and heat transfer
			c01	Student shall be able to describe basic concepts and theories within the area of industrial management
Industrial Engineer	ing ME3	72-19	CO2	Student shall be able to present organizationalanalysis,
Management			соз	Student shallalso be able to use simple project planning technique
				Relate the basic concepts and technologies used in the field of management information systems
Management			CO1	Compare the processes of developing and implementing information systems
Information	MES	374-19	CO2	Outline the role of the ethical, social, and security issues of information systems.
			соз	
		ME471-19	C01	Develop an ability to perform the role of a materials manager in an organization. Shall be able to manage the activities of materials manager like purchasing, inventory analysis, storage etc.in a scientific
Material Manage	ment ME		CO2	
			соз	3. Shall be able to improve due date performance through use of MRP techniques with in capacity constraints
			c01	Understand the maintenance function and its objectives and know how to prepare reportabout the maintenance function
Maintenance and	d a	E473-19		Coin the necessary knowledge about the types of maintenance and know how to use them when design maintenance syste
reliability engine	ering			Gain the necessary knowledge about failure distributions and apply failure analysis techniques
			CO3	Understand the principles and applications of refrigeration systems
			a desta de la composición de	Understand the principles and applications Understand vapour compression refrigeration system and identify methods for
Refrigeration an Conditioning	id Air	1E402-1	.9 CO2	performance improvement.
			coa	Analyze air-conditioning processes using the principles of psychrometry, Study of refrigerant compressors, expansion devices used in vapour compression defined after system, thermostat with ra
	AND STADE OF SAME		co:	Study of refrigerant compressors, expansion devices used in the second state of the se

Dr. Viyoy Duninun

Anninder Sight GD, Mechanical

tefrigeration and Air Conditioning lab	ME404-19	CO2	Students should be able to operate and analyze the refrigeration and air conditioning system
CITATOLINE IN	4	соз	Students will demonstrate an understanding of heat transfer in buildings with a given architectural design and its application to heating and cooling load estimation
		C01	Understand abrasive and electrical discharge machining processes
Advanced Manufacturing	ME408-19	CO2	Understand forming process for thin sections
Processes		соз	Understand the principles and applications of friction stir welding processes
		C01	Be able to List and define different defects that occur in welding shown through Non-Destructive Examination/Destructive Testing
Non Destructive Evaluation and Testing	ME410-19	CO2	Be able to identify the types of equipment used for each Non-Destructive and Destructive Examination.
cyaluation and results		соз	Be able to go to specific Code, Standard, or Specification related to each testing method
		C01	Decide the surface preparation methods suitable for different substrate materials.
Technology of Surface Coating	ME412-19	CO2	Apply knowledge on properties offered by different Coatings based on the application requirement.
		соз	Understand & interpret testing &evaluation of metallic coatings.
		CO1	Students will acquire the ability to make links across different areas of knowledge and to generate, develop and evaluate ide and information so as to apply these skills to the project task.
Project Work	ME406-19	CO2	Students will acquire collaborative skills through working in a team to achieve common goals.
		соз	Students will be able to learn on their own, reflect on their learning and take appropriate actions to improve it.
		C01	Apply knowledge of fundamental concepts of operations management.
Operation Management	ME472-19	CO2	Apply knowledge of approaches to operational performance improvement.
		соз	Apply decision-support tools to business decision making.
		C01	Enumerate the importance of industrial safety.
Industrial Safety	ME474-19	CO2	Indicate unsafe acts and conditions causing accidents.
alas Siley deservation		соз	Outline accident investigation and analysis.
New York Control of Co		C01	Differentiate the internal combustion engines based on the classification parameters.
ICENGINE	ME476-19	CO2	Explain different types of fuel injection system and combustion chambers of CI engine
		CO3	Discuss various ignition methods used in I.C. engine
and the second		CO1	Summarize the layout and components in a power plant.
Power Plant	ME478-19	CO2	2. Enumerate and classify the types of power plants available.
Engineer		CO3	3. Recognize the steam cycles on pressure - volume and temperature diagram

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