SETHU INSTITUTE OF TECHNOLOGY

PULLOOR, KARIAPATTI – 626 115.

(AN AUTONOMOUS INSTITUTION)

REGULATION – 2015

M.E CAD/CAM (FULL TIME & PART TIME)

CHOICE BASED CREDIT SYSTEM

CURRICULUM & SYLLABUS

CHAIRPERSON

Chairperson
Board of Studies
Mechanical Engineering
Sethu Institute of Technology
Kariapatti - 626 115

CHAIRMAN
ACADEMIC COUNCIL

CHAIRMAN
ACADEMIC COUNCIL
Sethu Institute of Technology
Pulloor, Kariapatti - 625 115

SETHU INSTITUTE OF TECHNOLOGY

Pulloor, Kariapatti – 626 115

(***An Autonomous Institution***)

M.E. Degree Programme

CURRICULUM

Regulations 2015

M.E CAD/CAM

OVERALL COURSE STRUCTURE

S.No.	Category	Total No. of Courses	Credits	Distribution in %
1	Basic Science	1	4	6
2	Programme Core	12	28	42
3	Porgramme Elective	5	15	22
4	Open Elective	1	3	4
5	Project Work	2	18	26
Total		21	68	100

COURSE CREDITS – SEMESTER WISE

Branch	I	II	III	IV	TOTAL
ME CAD CAM	17	17	19	15	68

Employability Courses
Skill Development Courses
Entrepreneurship Development Courses
Any two or all of the above

M.E CAD/CAM

REGULATION – 2015

(Applicable to the students admitted from the Academic Year 2015 – 2016 onwards)

CURRICULUM

PROGRAMME CORE

WINTER SEMESTER								
SL. No.	**COURSE CODE**	**COURSE TITLE**	**L**	**T**	**P**	**C**	OFFER DURING SUMMER OR WINTER	**Category**
1.	**15PMA124**	Advanced Numerical Methods	3	2	0	4	winter	BS
2.	15PCD101	Computer Application in Design	3	0	0	3	winter	PC
3.	15PCD102	Advanced Finite Element Analysis	3	0	0	3	winter	PC
4.	15PCD103	Integrated Mechanical Design	3	0	0	3	winter	PC
5.	15PCD105	Computer Aided Design And Manufacturing Laboratory	0	0	3	1	winter	PC
6.	15PCD301	Competitive Manufacturing Systems	3	0	0	3	winter	PC
7.	15PCD302	Additive Manufacturing	3	0	0	3	winter	PC
8.	15PCD304	Industrial training	0	0	0	1	winter	PC
9.	15PCD303	Project Work (PHASE – I)	0	0	6	3	winter	PC
10.	15PCD201	Design for Manufacture, Assembly and Environments	3	0	0	3	summer	PC
11.	15PCD202	Applied Materials Engineering	3	0	0	3	summer	PC
12.	15PCD203	Integrated Product Design and Processes Development	3	0	0	3	summer	PC
13.	15PCD204	Design Project	0	0	3	1	summer	PC
14.	15PCD205	Internship	0	0	2	1	summer	PC
15.	15PCD401	Project Work (PHASE – II)	0	0	30	15	summer	PC

PROGRAMME ELECTIVES

S.No	Course Code	Course Title	L	T	P	C
1.	15PCD501	Mechatronics in Manufacturing Systems	3	0	0	3
2.	15PCD502	Tribology in Design	3	0	0	3
3.	15PCD503	Design of Hydraulic and Pneumatic Systems	3	0	0	3
4.	15PCD504	Data Communication in CAD/CAM	3	0	0	3
5.	15PCD505	Performance Modeling and Analysis of Manufacturing System	3	0	0	3
6.	15PCD506	Optimization Techniques in Design	3	0	0	3
7.	15PCD507	Industrial Safety Management	3	0	0	3
8.	15PCD508	Integrated manufacturing system	3	0	0	3
9.	15PCD509	Vibration Analysis and Control	3	0	0	3
10.	15PCD510	Metrology and Non Destructive Testing	3	0	0	3
11.	15PCD511	Advanced Mechanics of Materials	3	0	0	3
12.	15PCD512	Design of Material Handling Equipments	3	0	0	3
13.	15PCD513	Advanced Tool Design	3	0	0	3
14.	15PCD514	Mechanisms Design and Simulation	3	0	0	3
15.	15PCD515	Computational Fluid Dynamics in Manufacturing	3	0	0	3
16.	15PCD516	Reliability Engineering Models	3	0	0	3
17.	15PCD517	Maintenance Engineering and Management	3	0	0	3
18.	15PCD518	Industrial Robotics and Expert Systems	3	0	0	3
19.	15PCD519	Lean Manufacturing	3	0	0	3
20.	15PCD520	Design for Cellular Manufacturing Systems	3	0	0	3

LIST OF OPEN ELECTIVE

S. No	Course Code	Course Title	L	T	P	C
1.	15PCD605	Industrial Safety	3	0	0	3
2.	15PCD606	Business Management and Leadership	3	0	0	3

LIST OF ELECTIVES (For Ph.D. Scholars)

S. No	Course Code	Course Title	L	T	P	C
1.	15PCD521	Synthesis and Characterization of Nanomaterials	3	0	0	3
2.	15PCD522	Design and Analysis of Experiments	3	0	0	3
3.	15PCD523	Mechanical Behavior of Materials	3	0	0	3
4.	15PCD524	Material Testing and Characterization	3	0	0	3
5.	15PCD525	Composite Materials and Mechanics	3	0	0	3
6.	15PCD526	Advanced Optimization Techniques	3	0	0	3

M.E CAD/CAM

REGULATION – 2015

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CURRICULUM I TO IV SEMESTERS (FULL TIME)

SEMESTER I

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
16.	15PMA124	Advanced Numerical Methods	3	2	0	4
17.	15PCD101	Computer Application in Design	3	0	0	3
18.	15PCD102	Advanced Finite Element Analysis	3	0	0	3
19.	15PCD103	Integrated Mechanical Design	3	0	0	3
20.		Programme Elective	3	0	0	3
PRACTICAL						
21.	15PCD105	Computer Aided Design And Manufacturing Laboratory	0	0	3	1
TOTAL			**15**	**2**	**3**	**17**
Total Number of Credits: 17						

SEMESTER II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCD201	Design for Manufacture, Assembly and Environments	3	0	0	3
2.	15PCD202	Applied Materials Engineering	3	0	0	3
3.	15PCD203	Integrated Product Design and Processes Development	3	0	0	3
4.		Programme Elective	3	0	0	3
5.		Programme Elective	3	0	0	3
PRACTICAL						
6.	15PCD204	Design Project	0	0	3	1
7.	15PCD205	Internship	0	0	2	1
TOTAL			**15**	**0**	**5**	**17**
Total Number of Credits: 17						

SEMESTER III

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCD301	Competitive Manufacturing Systems	3	0	0	3
2.	15PCD302	Additive Manufacturing	3	0	0	3
3.		Programme Elective	3	0	0	3
4.		Programme Elective	3	0	0	3
5.		Open Elective	3	0	0	3
PRACTICAL						
6.	15PCD303	Project Work (PHASE – I)	0	0	6	3
7.	15PCD304	Industrial training	0	0	2	1
TOTAL			**15**	**0**	**8**	**19**
Total Number of Credits: 19						

SEMESTER IV

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
PRACTICAL						
1.	15PCD401	Project Work (PHASE – II)	0	0	30	15
TOTAL			**0**	**0**	**30**	**15**
Total Number of Credits: 15						

TOTAL NO. OF CREDITS: 68

M.E CAD/CAM

REGULATION – 2015

(Applicable to the students admitted from the Academic Year 2015 – 2016 onwards)

CURRICULUM I TO VI SEMESTERS (PART TIME)

SEMESTER I

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PMA124	Advanced Numerical Methods	3	2	0	4
2.	15PCD101	Computer Application in Design	3	0	0	3
3.	15PCD102	Advanced Finite Element Analysis	3	0	0	3
PRACTICAL						
1.	15PCD105	Computer Aided Design And Manufacturing Laboratory	0	0	3	1
		TOTAL	**9**	**2**	**3**	**11**
Total Number of Credits: 11						

SEMESTER II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCD201	Design for Manufacture, Assembly and Environments	3	0	0	3
2.	15PCD302	Additive Manufacturing	3	0	0	3
		Programme Elective	3	0	0	3
PRACTICAL						
1.	15PCD204	Design Project	0	0	3	1
		TOTAL	**9**	**0**	**3**	**10**
Total Number of Credits: 10						

SEMESTER III

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCD103	Integrated Mechanical Design	3	0	0	3
2.	15PCD301	Competitive Manufacturing Systems	3	0	0	3
3.		Programme Elective	3	0	0	3
PRACTICAL						
4	15PCD205	Internship	0	0	2	1
		TOTAL	**9**	**0**	**2**	**10**
Total Number of Credits: 10						

SEMESTER IV

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCD202	Applied Materials Engineering	3	0	0	3
2.	15PCD203	Integrated Product Design and Processes Development	3	0	0	3
3.		Programme Elective	3	0	0	3
PRACTICAL						
4	15PCD304	Industrial training	0	0	2	1
TOTAL			**9**	**0**	**2**	**10**
Total Number of Credits: 10						

SEMESTER V

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.		Programme Elective	3	0	0	3
2.		Programme Elective	3	0	0	3
3.		Open Elective	3	0	0	3
PRACTICAL						
4	15PCD303	Project work (PHASE –I)	0	0	6	3
TOTAL			**9**	**0**	**6**	**12**
Total Number of Credits: 12						

SEMESTER VI

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
PRACTICAL						
1.	15PCD401	Project work (PHASE –II)	0	0	30	15
TOTAL			**0**	**0**	30	15
Total Number of Credits: 15						

Branch	I	II	III	IV	V	VI	TOTAL
ME CAD CAM	**11**	**10**	**10**	**10**	**12**	**15**	**68**

TOTAL NO. OF CREDITS: 68