



Department of Mechanical Engineering

Board of Studies – First meeting on 20-10-2022 at 02:00 pm

AGENDA

Item-1: Introduction of Board of Studies Members.

Item-2: Discussion on Course structure of Mechanical Engineering.

Item-3: Information regarding R22 Regulations.

Item-4: Finalizing the Syllabus of B.Tech I year I Semester & II Semester.

Item-5: Brief Discussion on Course structure of Mechanical Engineering II year to IV year.

Item-6: Any other points with the permission of the Chair.

Dr. AC. Uma Maheshwari Rao

Dr.AC.Uma Maheshwari Rao

BoS – Chairman & HoD of ME



Department of Mechanical Engineering

Board of Studies Members

S.No	Name	Designation	Position
1	Dr. A.C.Uma Maheswer Rao	HoD, ME	Chairman
2	Dr. M.Manzoor Hussain	Prof of ME, JNTUH, UCEH	University Nominee
3	Mr. Uday Bhaskar	Senior Manager, Hindustan Aeronautical Limited	Industrialist
4	Mr. Y.Krishnaiah	Assoc.Prof, SIET	Specialized Faculty-1
5	Mr. K. Sainath	Assoc.Prof, SIET	Specialized Faculty-2
6	Mr. K.L.N.Murthy	Asst.Prof, SIET	Specialized Faculty-3
7	Mr. T.Abhishake	3-D Solution Entrepreneur	Alumni Student
8	Dr. K Chandra Shekar	Professor of M.E. and Dean Academics, Vignan Institute of Technology and Science	Subject Expert-1
9	Dr. A. Devraju	Associate Professor, Department of Mechanical engineering, Kakatiya institute of Technology and Science Warangal - 506015	Subject Expert-2
10	Mr. K.Raja Shekar	Assoc.Prof, SIET	Faculty
11	Mr. D.V. Paleshwar	Asst.Prof, SIET	Faculty
12	Mr. Praveen B.Ronad	Asst.Prof, SIET	Faculty
13	Mrs. K.Ramya Deepika	Asst.Prof, SIET	Faculty
14	Mr. B.Sanjanna	Asst.Prof, SIET	Faculty



Suggestions/Remedies/Any other points

Point-1:

- Dr. A C Uma Maheshwer Rao, Prof. & HoD of Department of Mechanical Engineering, the chairman of the Board of Studies welcomed and introduced all the members who were present.
- Dr. A C Uma Maheshwer Rao (Chair) presented the Course Structure of Mechanical Engineering for the approval of upcoming Academic Year 2023-24.

Point-2:

- Dr. A C Uma Maheshwer Rao informed the members about the new academic activities commencing from the Academic Year 2023-2024.
- Dr. A C Uma Maheshwer Rao informed the members about R22 Regulations.
- Dr. Manzoor Hussain, Prof of Mechanical Engineering, JNTUH, UCEH, University Nominee, emphasized on the newly added courses and their importance viz, Python Programming, Elements of Mechanical Engineering, etc.

Point-3:

- Dr. K.Chandra Shekar, Professor of Mechanical Engineering and Dean Academics of Vignan Institute of Technology and Science and Mr. B.Uday Bhaskar, Senior Manager, Hindustan Aeronautical Limited and Dr. Manzoor Hussain, approved and accepted the Course Structure and Syllabus of Mechanical Engineering I year – I Semester & II Semester.
- Dr. Manzoor Hussain suggested to prepare more Open and Professional electives which may be more useful for Mechanical Engineering students for building their careers.
- All the members briefly discussed on the Course Structures of Mechanical Engineering II year to IV year.

Point 4: Suggestions of Dr.K.Chandra Shekar and Mr. B.Uday Bhaskar

- Suggested to include Technical Seminar in IV-II of B.Tech as 02 credit course and project Stage-II as 09 credit course.
- Increase the number of Credits in Engineering Mechanics to 4

List of enclosures:

- 1) R22 Regulations
- 2) Course Structure
- 3) Syllabus



Department of Mechanical Engineering

Board of Studies Meeting

20-10-2022

Members Attended

S.No	Name	Designation	Position	Signature
1	Dr. A.C.Uma Maheswer Rao	HoD, ME	Chairman	A. Uma Rao 20/10/2022
2	Dr. M.Manzoor Hussain	Prof of ME, JNTUH, UCEH	University Nominee	[Signature]
3	Dr. Uday Bhaskar	Senior Manager, Hindustan Aeronautical Limited	Industrialist	Uday Bhaskar 20/10/22
4	Mr. Y.Krishnaiah	Assoc.Prof, SIET	Specialized Faculty-1	[Signature]
5	Mr. K. Sainath	Assoc.Prof, SIET	Specialized Faculty-2	[Signature]
6	Mr. KLN.Murhty	Asst.Prof, SIET	Specialized Faculty-3	[Signature]
7	Mr. T.Abhishake	3-D Solution Entrepreneur	Alumni Student	[Signature]
8	Dr. K Chandra shekar	Professor of M.E. and Dean Academics, Vignan Institute of Technology and Science	Subject Expert-1	[Signature] 20/10/22
9	Dr. A. Devraju	Assocate Professor, Department of Mechanical engineering, Kakatiya institute of Technology and Science Warangal - 506015	Subject Expert-2	
10	Mr. K.Raja Shekar	Assoc.Prof, SIET	Faculty	[Signature]
11	Mr. D. Paleshwar	Asst.Prof, SIET	Faculty	[Signature]
12	Mr. Praveen B.Ronad	Asst.Prof, SIET	Faculty	[Signature]
13	Mrs. K.Ramya Deepika	Asst.Prof, SIET	Faculty	[Signature]
14	Mr. B.Sanjanna	Asst.Prof, SIET	Faculty	[Signature]

**SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)**

**B.Tech. in MECHANICAL ENGINEERING
COURSE STRUCTURE, I & II YEAR SYLLABUS (R22 Regulations)**

Applicable from AY 2022-23 Batch

I YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.	22BS01	Matrices and Calculus	3	1	0	4
2.	22BS02	Applied Physics	3	1	0	4
3.	22PC01	C Programming and Data Structures	3	0	0	3
4.	22PC02	Engineering Workshop	0	1	3	2.5
5.	22HS01	English for Skill Enhancement	2	0	0	2
6.	22PC10	Elements of Mechanical Engineering	0	0	2	1
7.	22HS02	Applied Physics Laboratory	0	0	3	1.5
8.	22HS03	English Language and Communication Skills Laboratory	0	0	2	1
9.	22PC04	C Programming and Data Structures Laboratory	0	0	2	1
10.	22HS04	Environmental Science	3	0	0	0
11.		Induction Programme				
Total			14	3	12	20

I YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.	22BS03	Ordinary Differential Equations and Vector Calculus	3	1	0	4
2.	22BS04	Engineering Chemistry	3	1	0	4
3.	22PC05	Computer Aided Engineering Graphics	1	0	4	3
4.	22PC11	Engineering Mechanics	3	0	0	3
5.	22PC12	Engineering Materials	2	0	0	2
6.	22PC08	Python Programming Laboratory	0	1	2	2
7.	22BS05	Engineering Chemistry Laboratory	0	0	2	1
8.	22PC13	Fuels & Lubricants Laboratory	0	0	2	1
Total			12	3	10	20

II YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.		Probability, Statistics & Complex Variables	3	1	0	4
2.		Mechanics of Solids	3	0	0	3
3.		Metallurgy & Material Science	3	0	0	3
4.		Production Technology	3	0	0	3
5.		Thermodynamics	3	1	0	4
6.		Production Technology Laboratory	0	0	2	1
7.		Material Science & Mechanics of Solids Laboratory	0	0	2	1
8.		Computer Aided Machine Drawing	0	0	2	1
9.		Constitution of India	3	0	0	0
Total Credits			18	2	6	20

II YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.		Basic Electrical and Electronics Engineering	3	0	0	3
2.		Kinematics of Machinery	3	0	0	3
3.		Fluid Mechanics & Hydraulic Machines	3	0	0	3
4.		IC Engines & Gas Turbines	3	0	0	3
5.		Instrumentation and Control Systems	3	0	0	3
6.		Basic Electrical and Electronics Engineering Laboratory	0	0	2	1
7.		Fluid Mechanics & Hydraulic Machines Laboratory	0	0	2	1
8.		Instrumentation and Control Systems Laboratory	0	0	2	1
9.		Real-time Research Project/ Field-Based Project	0	0	4	2
10.		Gender Sensitization Lab	0	0	2	0
		Total Credits	15	0	12	20

III YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.		Dynamics of Machinery	3	0	0	3
2.		Design of Machine Elements	3	0	0	3
3.		Metrology & Machine Tools	3	0	0	3
4.		Business Economics & Financial Analysis	3	0	0	3
5.		Steam Power & Jet Propulsion	3	0	0	3
6.		CAD/CAM	2	0	0	2
7.		Thermal Engineering Laboratory	0	0	2	1
8.		Metrology & Machine Tools Laboratory	0	0	2	1
9.		Kinematics & Dynamics Laboratory	0	0	2	1
10.		Intellectual Property Rights	3	0	0	0
		Total Credits	20	0	6	20

III YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1.		Machine Design	3	0	0	3
2.		Heat Transfer	3	0	0	3
3.		Finite Element Methods	3	0	0	3
4.		Professional Elective - I	3	0	0	3
5.		Open Elective - I	3	0	0	3
6.		Heat Transfer Lab	0	0	2	1
7.		Computer Aided Engineering Laboratory	0	0	2	1
8.		Advanced English Communication Skills Laboratory	0	0	2	1
9.		Industry Oriented Mini Project/ Internship	0	0	4	2
10.		Environmental Science	3	0	0	0
		Total Credits	18	0	10	20

Environmental Science in III Yr II Sem Should be Registered by Lateral Entry Students Only.

IV YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.		Industrial Management	2	0	0	2
2.		Refrigeration & Air Conditioning	3	0	0	3
3.		Professional Elective – II	3	0	0	3
4.		Professional Elective – III	3	0	0	3
5.		Professional Elective - IV	3	0	0	3
6.		Open Elective - II	3	0	0	3
7.		Project Stage - I	0	0	6	3
		Total Credits	17	0	6	20

IV YEAR II SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1.		Professional Elective – V	3	0	0	3
2.		Professional Elective - VI	3	0	0	3
3.		Open Elective - III	3	0	0	3
4.		Project Stage – II including seminar	0	0	22	9+2
		Total Credits	9	0	22	20

*MC – Satisfactory/Unsatisfactory

PROFESSIONAL ELECTIVES OFFERED IN R22**Professional Elective - I**

	Unconventional Machining Processes
	Power Plant Engineering
	Mechanical Vibrations
	Microprocessors in Automation

Professional Elective – II

	Artificial Intelligence in Mechanical Engineering
	Automobile Engineering
	Industrial Robotics
	Mechatronics

Professional Elective – III

	Production Planning & Control
	Computational Fluid Dynamics
	Composite Materials
	Solar energy technology

Professional Elective – IV

	Re-Engineering
	Non-Conventional Energy Sources
	Operations Research
	Electric and Hybrid Vehicles

Professional Elective – V

	Automation in Manufacturing
	Turbo Machinery
	Additive Manufacturing
	Energy Conservation and Management

Professional Elective – VI

	Industry 4.0
	Fluid Power System
	Fuzzy Logic and ANN
	Total Quality Management

List of Open Electives

Open Elective (OE – I)

1. Basic Mechanical Engineering
2. Renewable energy Sources

Open Elective (OE – II)

1. Quantitative Analysis for Business Decisions
2. Industrial Engineering & Management

Open Elective (OE – III)

1. Entrepreneurship Development
2. Elements of Electric and Hybrid vehicles