

KRISHNASAMY

College of
ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University
Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.
☎ (04142) 285 601 - 604 🌐 www.kcet.in ✉ info@kcet.in

DEPARTMENT OF MECHANICAL ENGINEERING

Date: 03.01.2024

CIRCULAR

Ref.: KCET/MECH/VAC/CIRCULAR/2023-24/01.

The following Value-Added Course will be conducted during the academic year 2023-2024. The course will be conducted for third year two phases from 11.01.2024 to 12.01.24 and 18.01.24 to 20.01.2024, and for second year classes will be conducted in two phases from 21.02.2024 to 24.02.24 and from 28.2.2024 to 29.02.24. Students are instructed to register their names in the course allotted to them.

Note: Students are instructed to attend the program without fail.

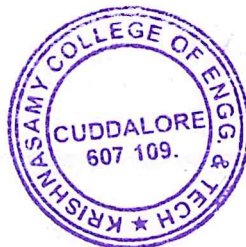
S. No.	Course Code	Name of the Course	Year / Sem	No. of Period	Course Coordinator
1	ME-VAC2301	Introduction to Solid Works	III / V	30	Dr. G. Magesh, Asst. Prof
2	ME-VAC2302	Basic 3D modelling using Fusion 360	II / III	32	Er. P. Prakash, Asst. Prof

For *[Signature]*
HoD/MECH 31/1/24

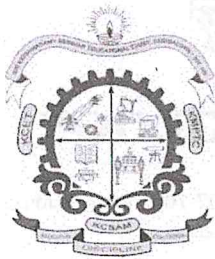
Submitted to the Principal

[Signature]
31/1/24
Vice-Principal

[Signature]
31/1/24
Principal



Dr. G. ELANGO, M.E., Ph.D
PRINCIPAL,
KRISHNASAMY COLLEGE OF
ENGINEERING & TECHNOLOGY,
KUMARAPURAM, CUDDALORE-607 109



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SYLLABUS

COURSE CODE MEVAC2302

COURSE NAME BASIC 3D MODELLING USING FUSION 360

COURSE OBJECTIVES

- To Navigate the Autodesk Fusion 360 user interface.
- To designing simple parts using parametric modelling tools.
- To Creating and annotating drawings and views.
- To Generating 3D parts from sketches.
- To assemble parts by applying different joints and constraints, including motion links.

Module I: Introduction to Autodesk Fusion 360

4

Fusion 360 Fundamentals - Design Units and Origin Quick Shape Creation.

Module II: Creating Parametric modelling

7

Introduction to the Sketching Workflow Sketch Entities - Dimensioning - Sketch Constraints Extruding a Sketch Revolving a Sketch - Additional Entity Types Editing Tools - Additional Dimension Tools - Moving and Copying - Rectangular Sketch - Patterns Circular - Sketch Patterns.

Module III: Drawing Basics

5

Construction Planes - Construction Axes - Construction Points, creating a New Drawing - Additional Drawing Views - Exploded Views - Manipulating Drawings - Creating Holes and Threads.

Module IV: 3D Part Modelling

8

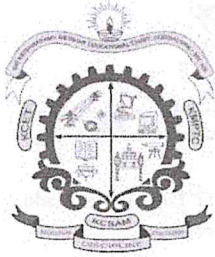
Bearings – Bush Bearing - Couplings – Flange, Muff - Joints – Universal, - Engine parts – Piston, , Stuffing box - Machine Components – Screw Jack, Lathe Chuck, Plummer Block.

Module V: 3D Assembly

8

Assembly Design Methods - Bodies and Components - Adding constraints - Component properties - Distributed Design - Joint Origins - Assigning Joints- Drawing outputs - Fusion eDemo.

Total No. of Periods 32



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COURSE OUTCOMES

- Understand the importance of the linking functional and visualization aspects in the preparation of the part drawings
- Interpret the Machining and surface finish symbols on the component drawings.
- Preparation of the part or assembly drawings as per the conventions.

TEXT BOOK

1. Gopalakrishna K.R., "Machine Drawing", 17th Edition, Subhas Stores Books Corner, Bangalore, 2003.
2. Autodesk Fusion 360: A Power Guide for Beginners and Intermediate Users Paperback John Willis , by Sandeep, Dogra and Cadartifex, 6 June 2018

REFERENCES

1. K. L Narayana, P.Kannaiah, K.Venkata Reddy, Machine Drawing , 15 Edition , New Age International Publication.
2. Goutam Pohit and Goutam Ghosh, "Machine Drawing with AutoCAD", 1st Edition, Pearson Education, 2004

TUTORIAL LINK:

<https://www.youtube.com/watch?v=qvrHuaHhqHI>

for *L. Prabhakar*
21/11/24
HoD/MECH