



KRISHNASAMY COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

Anand Nagar, Nellikuppam Main Road, Kumarapuram, Cuddalore – 607 109.

Phone no.(04142) 285 601- 604

www.kcet.in

info@kcet.in

20.11.2018

DEPARTMENT OF MECHANICAL ENGINEERING

(Academic Year 2018-2019)

CIRCULAR

It is planned to conduct a value-added course for III & IV year Mechanical Engineering students on the subject given below. Each module is scheduled from 10.12.2018 to 14.12.2018. The course plan, test procedure, attendance is followed as per regulation 2013 respectively. It is highly advised that the students should attend all the sessions and get benefited of the course.

The syllabus for the same has been formulated and will be circulated to students. The eminent staff from our department is invited to give lectures on topics from syllabus.

S.No	Year	Code/Name of the subject	Duration in Hours	Subject Incharge
1	IV	ME-VAC1801/Heating,ventilation, Airconditioning (HVAC).	30	Er.G.Senthilvel AP/Mech
2	III	ME-VAC1802/ Advanced Welding Technology	30	Er.E.Gopal,AP/Mech

[Signature]
20/11/18

HOD

[Signature]
20/11/2018

VICE-PRINCIPAL

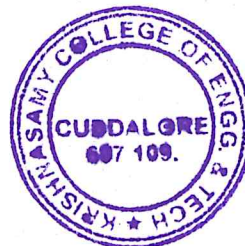
[Signature]

PRINCIPAL

Copy to :

Class Room

Class In charge





KRISHNASAMY COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

Anand Nagar, Nellikuppam Main Road, Kumarapuram, Cuddalore – 607 109.

Phone no.(04142) 285 601- 604

www.kcet.in

info@kcet.in

SYLLABUS

Subject Code/ Subject Name: ME-VAC1802 - ADVANCED WELDING TECHNOLOGY

Duration: 30 Hours

COURSE OBJECTIVES

- To impart technical knowledge such as welding theory, safety procedures, and methods.
- To develop skills and techniques in order to work with metal and join materials together.
- To apply professional skill, knowledge, core skills & employability skills while performing jobs and solve problem during execution.

Module I: INTRODUCTION

Welding as compared with other fabrication processes, Importance and application of welding, classification of welding processes, and Health & safety measures in welding.

Welding Power Sources: Physics of welding Arc, Basic characteristics of power sources for various arc welding processes, Transformer, rectifier and generators.

Module II: WELDING PROCESSES - I

Manual Metal Arc Welding (MMAW), TIG, MIG, Plasma Arc, Submerged Arc Welding, Electro gas and Electro slag, Flux Cored Arc Welding, Resistance welding, Friction welding, Brazing, Soldering and Braze welding processes,

Module III : WELDING PROCESSES - II

Laser beam welding, Electron beam welding, Ultrasonic welding, Explosive welding, Friction Stir Welding, Underwater welding & Microwave welding.

Module IV : WELDABILITY

Effects of alloying elements on weld ability, welding of plain carbon steel, Cast Iron and aluminum. Micro & Macro structures in welding.

6

6

6

6

6



KRISHNASAMY COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

Anand Nagar, Nellikuppam Main Road, Kumarapuram, Cuddalore – 607 109.

Phone no.(04142) 285 601- 604

www.kcet.in

info@kcet.in

Module V : WELD DESIGN

Types of welds & joints, Joint Design, Welding Symbols, weld defects,
Inspection/testing of welds, Introduction to Welding Procedure Specification &
Procedure Qualification Record.

Total No. of Periods 30

COURSE OUTCOMES

- Practice safe welding, thermal cutting, and grinding habits in a lab environment.
- Identify, evaluate, and solve common weld ability problems.
- Demonstrate the ability to properly set up, operate, and shut down applicable welding and cutting equipment.

REFERENCES

1. Welding and Welding Technology, by- Richard L. Little, McGraw Hill Education.
2. Welding Principles and Practices, by- Edwards R. Bohnart, McGraw Hill Education.
3. Welding Engineering and Technology, by- R. S. Parmar, Khanna Publishers.
4. Welding Handbooks (Vol. I & II).


19/11/18
HOD/MECH

