

EN7918

## Applied Heat Transfer



**Course Aim** To equip students with knowledge and practical experience in heat transfer engineering in industrial applications.

**Short Title**

**Faculty** EDICT

**Credits** 15

**Pre-requisites** EN6110 (or ENB5110) or EN7919 (or ENB6919)

**Co-requisites** None

**Anti-requisites** ENB6916

**Version** 3

**Effective From** September 1, 2016

**Indicative NQF Level** 7

**Student Contact hrs** 90

**Self-directed hrs** 60

**Other directed hrs** 0

**Total learning hrs** 150

**Learning**

**Outcomes**

On successful completion of this course, students will be able to:

- 1 Demonstrate advanced knowledge of the modes of heat transfer to solve practical industrial heat transfer problems.
- 2 Critically analyse and evaluate heat transfer in mixed mode situations, with emphasis on Conduction-Convection modes in practical project settings.
- 3 Contrast methods governing the enhancement of heat transfer in various designs, and apply optimisation techniques.
- 4 Critically analyse the different types of heat exchanger applications, and solve practical industrial heat exchanger problems.
- 5 Apply appropriate heat transfer techniques to real applications, and design systems for industrial use.

**NQF Sub-strand**

Theoretical  
Understanding  
Practical  
Application of  
knowledge  
Theoretical  
Understanding  
Practical  
Application of  
knowledge  
Autonomy,  
Responsibility,  
Context