



HÖGSKOLAN I GÄVLE

Heat Transfer 7.5 cr

Värmeöverföring 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version	Set at	Valid from
	5/12/11	HT2011

Level	G1F
Education level	First cycle
Course identifier	ETG302
Credits	7.5 cr
Main field of study	Energy Systems
Subject group	Energy Technology
Disciplinary domain	Technology 100.0 %

Learning outcomes On completion of the course, the student should be able to:

1. account for the theoretical connections occurring in heat transfer
2. used simplified solution methods occurring in heat transfer
3. account for how the theoretical connections relate to fluid and temperature distribution in basic and applied cases
4. use numerical solution methods occurring in heat conduction.

Course content Heat conduction
Principles for convection
Empirical and practical relations for forced convective heat transfer
Natural convection
Radiation
Analytical solutions to simple heat transfer problems and more complicated cases where empirical correlations or numerical methods are used

Teaching Lectures, calculation exercises, take-home assignments.

Prerequisites Mathematics for Engineers, 15 HE credits, Basic Thermodynamics, 7.5 HE credits, Basic Fluid Mechanics, 7.5 HE credits or equivalent.

Examination	0010 Written Examination, 7.5 HE credits		
Grade	A, B, C, D, E, Fx, F		
Other regulations	Grading criteria are provided by the course coordinator or examiner at the beginning of the course.		
Sustainable environment	A minor part of the course content deals with sustainable development.		
Module	0010 Written examination	7.5 cr	Grade: AF