HÖGSKOLAN I GÄVLE

Psychology and Perspectives of Energy Efficiency 15 cr

Psykologi och perspektiv på energieffektivisering 15 hp

Set by Faculty of Engineering and Sustainable Development

Version	**Set at**	**Valid from**
	2/27/19	**VT2021**

Level	A1N
Education level	Second cycle
Course identifier	ETA005
Credits	15 cr
Main field of study	Energy Systems, Environmental Psychology
Subject group	Energy Technology
Disciplinary domain	Technology 50.0 % Social sciences 50.0 %

Learning outcomes

After completion of the course the student shall be able to
Knowledge and understanding
1. explain how various environmental factors influence human beings socially and cognitively
2. demonstrate familiarity with basic research methods and theoretical approaches used in environmental psychology
3. describe how environmental psychology can be applied in everyday environments, including workplaces and schools
4. describe and explain how theories of environmental psychology can be applied on climate change and energy related human behavior
5. demonstrate broad knowledge of environmental aspects of energy efficiency measures from a system perspective

Competence and skills
6. apply acquired knowledge, as well as acquire and make use of knowledge needed for improving energy efficiency
7. demonstrate understanding of “cross-pollinating” perspectives from social and engineering sciences on energy efficiency measures
8. evaluate and/or design energy efficiency programs, schemes and policies that incorporate

environmental psychology perspectives
9. formulate research questions on building and industrial energy efficiency with an interdisciplinary perspective
10. independently identify and solve problems as well as complete tasks within given time framework

Judgement and approach
11. make assessments informed by disciplinary issues related to the course content
12. make assessments informed by economical aspects, environmental and social issues related to the course content.

Course content

Theories in various specialized fields of Environmental Psychology, including those that relate to human behavior, social aspects and perception of the environment. Sociotechnical aspects of industrial Energy efficiency, Energy efficiency in existing buildings in terms of energy use, occupant behavior and rebound effects. Energy efficiency measures from system perspective: technical, economic, cultural values and environment are evaluated. Text review and peer critique.

Teaching

Lectures, tasks and seminars. To a larger extent the course is given in the form of home assignment and tasks.

Prerequisites

Degree of Bachelor of Science in technology or natural sciences 180 cr, or equivalent foreign degree, at least 12 cr of which involves studies in energy related fields, environmental sustainability and/or energy efficiency, or equivalent knowledge.

Examination

Written Home Examinations,
0010 Written home examination examines Learning outcomes 1-4, grades A-F.
0020 Written home examination examines outcomes 5-8, grades A-F.
0030 Written home examination examines Learning outcomes 1-12, grades A-F.

Grade

A, B, C, D, E, Fx, F

Other regulations

Degree Criteria for final grade will be given by the course responsible or examiner latest at the beginning of the course.

Sustainable environment

A minor part of the course content deals with sustainable development.

Module

0010	Written home examination	5 cr	Grade: AF
0020	Written home examination	5 cr	Grade: AF
0030	Written home examination	5 cr	Grade: AF