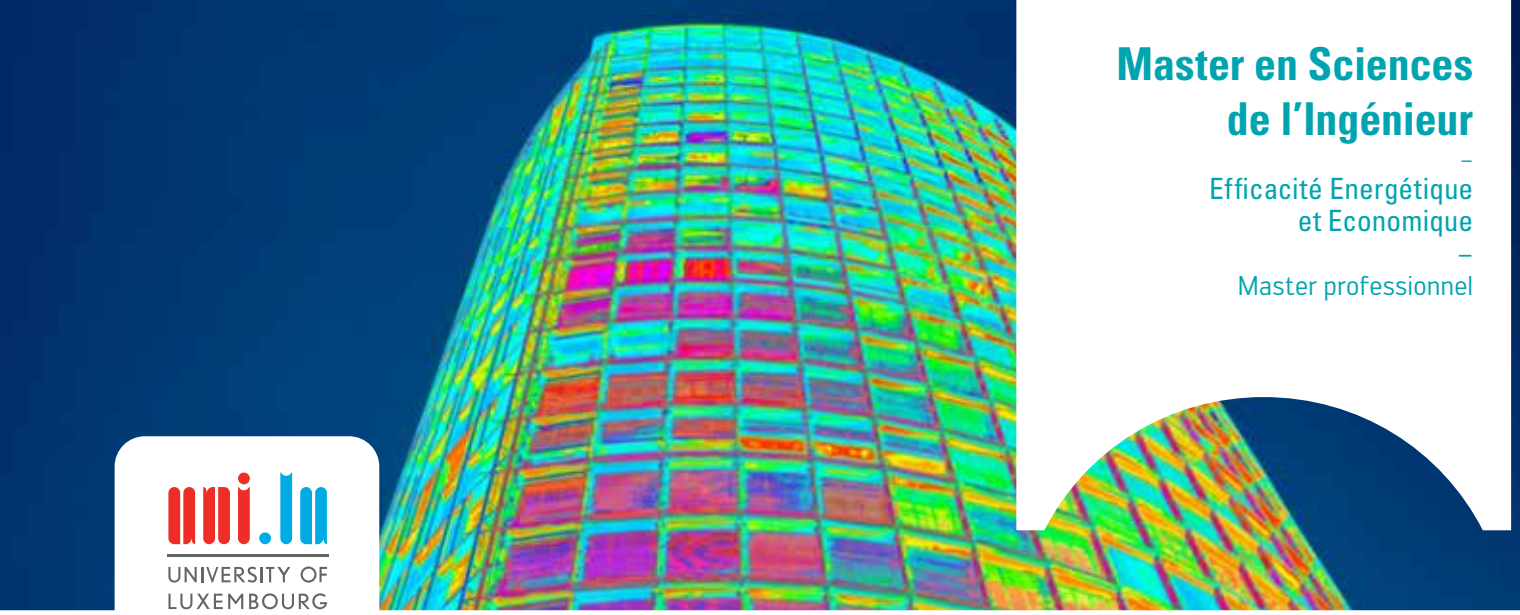

Master en Sciences de l'Ingénieur

–

Efficacité Energétique et Economique

–

Master professionnel

UNIVERSITY OF LUXEMBOURG

FACULTY OF SCIENCE, TECHNOLOGY AND COMMUNICATION

Degree

Master professionnel en Sciences de l'Ingénieur – Efficacité Energétique et Economique

Duration

2 year full-time programme / 4 semesters: 120 ECTS

Teaching languages

French, English (level B1 for both languages)

Objectives

The energy efficiency bias of this course makes it ideal for very good engineering bachelor graduates wishing to acquire deeper knowledge in thermodynamics, mathematics and modern technologies needed to assess energy-related issues. The course combines technical elements with units from economical sciences and business administration in the aim of providing the full range of skills required for approaching technically and commercially energy related problems.

Special features

The course is run in collaboration with the University of Lorraine in Nancy, and in collaboration with Siemens, Bosch, Paul Wurth, as well as the European Investment Bank (EIB). The mobility of both students and lecturers provides an international approach to energy issues and the opportunity to learn foreign languages. This course is run under an ERASMUS agreement.

UNIVERSITÉ DE LORRAINE SIEMENS BOSCH Buderus PAUL WURTH European Investment Bank

Further study and career opportunities

Engineers with expertise in energy efficiency work in private sector as well as central and local government managerial positions involving energy and environmental issues, research and teaching, energy and environmental consultancies. The student can also continue his or her career with PhD-research at a university.

Entry requirements

The Master's programme is consecutive to the University's Bachelor en Ingénierie (professionnel), filière énergie et environnement. However other graduates from engineering sciences (e.g. civil, mechanical, electrical...) can be admitted with respectively without conditions.

Enrolment fee

200 € / semester

Programme

Sem.	Cours	ECTS	Responsable	Site
1	Mathematics IV	5	UL	Lux.
1	Thermodynamics IV	5	UL	Lux.
1	Contrôle de gestion	4	UL-Beg	Lux.
1	Droit commun des contrats : Approche transnationale (Droit civil III)	3	UL-Bed	Lux.
1	Computational Fluid Dynamics	3	UL	Lux.
1	Systems for energy optimisation	7	Siemens	Lux.
1	Energetics of the blast furnace	3	Paul Wurth	Lux.
Somme		30		
2	Heat and Mass Transfer	5	UL	Lux.
2	Policy, assessment and evaluation of energy projects on European level	3	EIB	Lux.
2	Energy efficiency of buildings (parts I, II and Lab)	6	UL-MDDEE	Lux.
2	Energy efficiency of buildings (parts III, IV and Lab)	6	UL	Lux.
2	Financial Accounting	2	UL-Beg	Lux.
2	Fondements de gestion d'entreprise III: analyse financière	4	UL-BSE	Lux.
2	Introduction aux décisions financières de l'entreprise	4	UL-BSE	Lux.
Somme	30			
3	Large Solar Thermal Systems	3	Buderus	Lux
3	Introduction to the TRNSYS simulation program	3	ULg	Arlon
3	Monitoring d'installation, optimisation à distance	3	Bosch	Nancy
3	Automatismes du bâtiment et optimisation des ambiances intérieures	3	UdL	Nancy
3	Énergies renouvelables et systèmes énergétiques	3	UdL	Nancy
3	Réglementations, référentiels et labels – audits et diagnostiques	3	UdL	Nancy
3	Méthodes ACV et d'évaluation de l'impact environnemental d'un bâtiment	3	UdL	Nancy
3	Ingénierie Incendie	3	UdL	Nancy
3	Méthodes et outils scientifiques pour l'ingénieur	6	UdL	Nancy
Somme		30		
4	Thèse	30	Au choix	
Somme		30		

Campus

Kirchberg
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Further information

http://meee.uni.lu