

Master 1 & 2: MSc. ERGONOMICS

Pedagogical director: Prof. Eric BRANGIER, Eric.Brangier@univ-lorraine.fr

Aims

Train professional Ergonomists who contribute to the understanding, design and improvement of work situations, products, technologies, services and workplaces in order to adapt them as much as possible to people's needs, in terms of comfort, performance, safety, health and efficiency. Students will learn about a range of human characteristics as they relate to our interactions with jobs, environments, products, services and other people.

Careers

The ergonomics professions are in the areas of occupational health, working conditions, safety, user experience, services, design, disability, aging, inclusive design, performance, environment... in consulting firms, agencies, companies, research organizations and administrations. In these sectors, the jobs are related to the design, evaluation and prospection of products, services, technical systems and situations taking into account human and social characteristics in order to guarantee a high level of comfort and human performance and to prevent risks and nuisances related to the activity.

European Ergonomist title

The aim of this Master is to enable graduates students to obtain the European Ergonomist title issued by ARTEE (Association pour la Reconnaissance du Titre d'Ergonome Européen) and the CREE (Centre for Registration of European Ergonomists) in agreement with the SELF (Société d'Ergonomie de Langue Française, French Ergonomics Society).

Entry requirements

In agreement with disciplines and theoreticians who founded the ergonomics in the 20th century, this program is dedicated to students with a minimum undergraduate level in disciplines such as: Bachelor in psychology, or biomechanics and anthropometry, or nursing, or physiotherapy, or sports sciences, or organizational sciences, or sociology, or industrial engineering.

Contact us

Université de Lorraine – Metz - Faculté des Sciences Humaines et Sociales - Ile du Saulcy - BP 60228 - 57045 METZ cedex 01.

Contact: Damien.Aignel@univ-lorraine.fr . Site web:

Master 1, core modules		Master 2, core modules	
Semester 1	Semester 2 in Metz	Semester 3	Semester 4
Work analysis and use analysis (60h, 6ECTS): Models of work analysis, Methods for textual analysis, Methods for quantitative analysis, Methods for behavioral analysis. Foundations (60h, 6ECTS): History of ergonomics, physiology of work, industrial toxicology, psychosociology, industrial relations. Ergonomics approaches (60h, 6ECTS): Physical, cognitive, organizational ergonomics. Professional culture 1 (32h, 3ECTS): Labor law, language. Research training 1 (30h, 9ECTS): written scientific communication, research work, bibliographic synthesis.	Prevention and risk management (60h, 6ECTS): Health, well-being, risk analysis, working conditions, errors and failure analysis. Evaluation and design (60h, 6ECTS): Ergonomics design, Product ergonomics, Usability, Oculometry, Neuroergonomics Intervention (60h, 6ECTS): Theories of the intervention, prospective ergonomics, practices of the intervention. Professional Culture 2 (32h, 3ECTS): Social Law, Business Management, Language. Research training 2 (30h, 9ECTS): oral scientific communication, Research work, data analysis	Safety, security and health at work (40h, 5ECTS): Emotion and psychosocial risks, Reliability, Organizational Resilience, Accidentology. Work, Use and Technology (40h, 5ECTS): Organizational Change, Persuasive technology and Gamification, Technology and Risk Analysis. Codesign (40h, 5ECTS): Co-design of Interactive Systems and Services, Collective Design Process. Inclusion and specificity (40h, 5ECTS): Population, aging and disability, Accessibility, Ergonomics of specific systems. Professional Culture 3 (32h, 5ECTS): Corporate Social Responsibility, Conflict mediation, Aspects of Health and Safety, Language. Advanced methods (40h, 5ECTS): Investigation methods; Methods for user experience and service design.	Field of application (66h, 6ECTS) Application and ergonomic development of systems, products and services: Ergonomic analysis, Ergonomic project management, Task modelling, Creativity, Innovative processes, Layout, Prototyping, Industrial development and protection, Business plan. Intervention engineering (40h option, 24ECTS): Ergonomic expertise, Analysis of intervention practice. Internship in company during 5-6 months, Master's thesis and disputation. Research in ergonomics and user experience (40h option, 24ECTS). Research Management, Research Practice Seminar. Laboratory internship during 5-6 months. Master's thesis and disputation.
	OR Semester abroad with a total of 30 ECTS		
	Canada (Polytechnique Montréal, UQAM, Laval). Norway (NTNU, Trondheim), Colombia (Universidad Rosario, Bogota)....		