

<b>ID</b>	3612
<b>Curricular Unit</b>	Introduction to Ergonomics
<b>Regent</b>	Filipa Catarina V. Silva Pinto Marto Carvalho
<b>Learning Outcomes</b>	<p>The UC Introduction to Ergonomics aims to provide the student an overview of the role of ergonomics science in the actual socio-economic context as well as the understanding of the Ergonomics practice. Learning purposes are:</p> <ul style="list-style-type: none"> <li>- To know the historical evolution of ergonomics and state of the art at the national and international settings;</li> <li>- To understand the needs and importance of ergonomics in the current socio-economic context;</li> <li>- To know framework of the ergonomist in labor systems;</li> <li>- To understand the basic stages of ergonomics practice.</li> </ul>
<b>Syllabus</b>	<ol style="list-style-type: none"> <li>1. Concept of Ergonomics</li> <li>2. Development of Ergonomics <ul style="list-style-type: none"> <li>- Origin and evolution;</li> <li>- The main currents of Ergonomics</li> </ul> </li> <li>3. Approach to the concept of Ergonomics <ul style="list-style-type: none"> <li>- Ergonomic Concepts various authors and agencies;</li> <li>- Ergonomics: Science Multi, Inter and Trans-disciplinary;</li> <li>- Key Features Ergonomics: Comfort, safety, health, efficiency and reliability</li> </ul> </li> <li>4. Approach to the concept of Work <ul style="list-style-type: none"> <li>- Work concept;</li> <li>- Man's position in the work organization;</li> <li>- Perspective of ergonomics about work</li> </ul> </li> <li>5. System Man-Work / Work situation <ul style="list-style-type: none"> <li>- Concept of system;</li> <li>- System components / work situation;</li> <li>- Types of relationships</li> </ul> </li> <li>6. Ergonomics practice <ul style="list-style-type: none"> <li>- Ergonomic analysis: areas of ergonomic analysis- socio-technical system; Activity; activity results.</li> <li>- Ergonomics intervention: areas of ergonomics intervention; classification of ergonomics from the intervention perspective; subject, context and scale of the intervention;</li> <li>- Examples of application contexts of Ergonomics.</li> </ul> </li> </ol>

## Evaluation

The UC includes two alternative models of evaluation: continuous and final. An ongoing evaluation provides for evaluation tests and one or two practical assignments (records, comments, reviews); The minimum grade admitted by test will be 9.5 values. An average of the two tests has a weight of 70% in the final classification. The minimum mark of the work classification (or the average of the work) is of 9,5 values and has a weight of 30% for a final of classification. This model requires a mandatory attendance in 4/5 of the classes actually taught. Alternatively students can choose the final evaluation that consists of a written examination, covering the whole subject. For an oral access (case by case decision) the student must obtain in the written and practical tests, the minimum grade of 9.5 values.

## Bibliography

- Cazamian, P. (1988) *Traité d'ergonomie*, Editions Octarés - Entreprises, Marseille.
- Dan MacLeod (1995) *The ergonomics edge: improving safety, quality and productivity*, VNR, USA.
- Guérin et al (2007). *Comprendre le travail pour le transformer*. Octares.Toulouse.
- Karwowski, W. (2011) *International Encyclopedia of ergonomics and human factors*, Vol.1, Taylor & Francis.
- Laville, A. (1990) *L'ergonomie*, Colecção Que sais-je?, PUF, Paris.
- Montmollin, M. (1990) *L'ergonomie*, Editions la Découverte, Paris.
- Noulin, M. (1992) *Ergonomie*, Techniplus, France.
- Rabardel, P.; Carlin, N.; Chesnais, M.; Lang, N.; Joliff, G.; Pascal, M. (2001) *Ergonomie, concepts et methods*, Editions Octarés, 3<sup>a</sup> ed., Toulouse.