

Module Title and Purpose	<b>Module Title, Code:</b>  <b>ECONOMIC AND ENVIRONMENTAL ASPECTS IN THE CHOICE OF MATERIALS</b> <b>30-AEM-815</b> <b>Elective professional</b>
	<b>Aims/Goals of the Module</b>  The student must be informed by theoretical and practical possibilities of the materials selection criteria respecting economic, mechanical, physical and environmental.
Module Delivery	<b>Contents:</b>  The choice of material has an impact throughout the life cycle of structures, affecting many aspects of economic and environmental performance. This course will provide a survey of methods to assess these impacts. The lectures will cover topics choice material concepts, fundamentals of engineering economics, economic methods of production modeling and life cycle assessment and environmental. Organization of different properties according to their classification of materials and the possibility of choosing the most effective of materials.
	<b>Literature</b>  [1] M.F. Ashby, K. Johnson, Materials and Design, Butterworth Heinemann, Oxford, UK - [2] M.F. Ashby, H. Shercliff, D. Cebon, Materials, Butterworth Heinemann, Oxford, UK [3] M.M. Farag, Materials and Process Selection for Engineering Design. Boca Raton: CRC Press, 2008 [4] M.F. Ashby, Materials Selection in Mechanical Design. Oxford: Elsevier, 2011. [5] Bauman, H., and A. Tillman. Hitch Hiker's Guide To LCA: An Orientation in Life Cycle Assessment Methodology and Application. Lund, Sweden: Studentlitteratur AB, 2004. ISBN: 9789144023649. [6] Sullivan, W., E. Wicks, and J. Luxhoj. Engineering Economy. 12th ed. East Rutherford, NJ: Prentice-Hall, 2002. ISBN: 9780130673381.
	<b>Teaching and Learning Methods:</b>  Lectures, exercises, consultations and presentations.  <b>Total Contact Hours:</b> 28+2=30 Hours  <b>Range of other Learning Methods:</b>  <b>Total Study Hours:</b> 20 Hours  <b>Total contact and study hours:</b> 50 Hours

Module Assessment	<b>Module Learning Outcomes :</b>  Upon completion of the course, students will be able to besides the knowledge acquired in other cases as well materials to be able to be much more efficient in their choice.
	<b>Assessment Methods:</b>  Participation in lectures, mid-term test 1, 2 mid-term test written examination, oral examination  <b>Number, type and method of evaluation :</b>  Participation 10%, Mid-term test 1 20% , Mid-term test 2 20% , Written Exam 30% , Oral Exam 20%, Total 100%
Module Management	<b>Credit Points and Duration</b>  3 ECTS, One semester, (IV)
	Contact Person
Compiled by:	<b>M.Kerolli</b>
Date	