

**IMM EU Socrates Erasmus Programme**  
**49104-IC-1-2003-1-RO-ERASMUS-PROGUC-1**

**Master programme**  
**Syllabus**  
**Course proposal**

**Course Title:** Fundamentals of Multimedia  
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<b>Purpose</b>	The purpose of the course is to introduce the students to the basics of multimedia presentations and multimedia applications development. It provides a theoretical foundation for the human communication and computer science principles that underlie successful multimedia.
<b>Learning Outcomes</b>	After attending the course, the student will be understand the needs and structure of multimedia applications, will be familiar with the main technologies used for developing multimedia content and will be aware of the social and legal consequences in the field.
<b>Course Summary</b>	The course covers a multidisciplinary field: principles, concepts and theories from communication science, computer science, physics, psychology, sociology, physiology, music, graphic arts and design, law and other disciplines.
<b>Course Structure</b>	<p>The proposed content of the course includes:</p> <ul style="list-style-type: none"><li>• History and uses of multimedia</li><li>• Definitions of multimedia</li><li>• Hypertext, hypermedia</li><li>• Elements of a multimedia application<ul style="list-style-type: none"><li>- text</li><li>- graphics</li><li>- sound</li><li>- animation</li><li>- audio-video clips</li></ul></li><li>• Technical characteristics of multimedia<ul style="list-style-type: none"><li>- hardware that enables multimedia</li><li>- software that enables multimedia</li></ul></li><li>• Basics of multimedia communication<ul style="list-style-type: none"><li>- models of communication</li><li>- interpersonal and mass communication</li><li>- interactivity</li></ul></li></ul>

	<ul style="list-style-type: none"> <li>• Applications development <ul style="list-style-type: none"> <li>- interactive design</li> </ul> </li> <li>• Legal and societal issues related to multimedia <ul style="list-style-type: none"> <li>- intellectual property</li> <li>- social policy</li> <li>- licensing</li> <li>- industry standards</li> </ul> </li> </ul>
<b>Learning Assignments</b>	<p>Types of assessments planned:</p> <ul style="list-style-type: none"> <li>- self-assesments</li> <li>- essay writing about a selected topic</li> <li>- standard presentatation</li> <li>- project for producing the informational design</li> <li>- project for producing a multimedia presentation of the proposed informational design</li> </ul> <p>Project work will be the most important assessment tool.</p>
<b>Tutorials Structure</b>	The course will consist of a balanced combination between face-to-face meetings and independent study. The workload of each tutorial will be on a week base.
<b>Interactive or Multimedia content</b>	The course is based on the material loaded by the instructor on the online platform. It contains some graphics, video and audio files, links to simulations or implemented compression techniques. The students will be requested to use Internet and other communication resources for research and to evaluate the findings.
<b>Software needed</b>	Software needed for students to be trained: Mind Manager, Microsoft PowerPoint, HTML.
<b>References</b>	<p>The main references:</p> <ol style="list-style-type: none"> <li>1. R. S. Tannenbaum – Theoretical Foundations of Multimedia, Comp. Science Press, 1998</li> <li>2. W. Rosch – Multimedia Bible, SAMS, 1995</li> <li>3. T. Vaughan – Multimedia. Making It Work, McGraw Hill, 2000</li> <li>4. N. Chapman, J. Chapman – Digital Multimedia, Wiley, 2001</li> <li>5. F. Halsall – Multimedia Communications, Addison Wesley, 2001</li> <li>6. L. Graham – The Principles of Interactive Design, Delmar Publ., 1999</li> <li>7. A. Friedlein – Web Project Management, Morgan Kaufmann, 2001</li> <li>8. I. Graham – Web Usability, Addison Wesley, 2002</li> <li>9. A. Sloane – Multimedia Communication, McGraw Hill, 1996</li> <li>10. D. Andone – Dezvoltarea aplicațiilor multimedia, UPT, 2001</li> </ol>