

Level: bachelor				
Course title: Application of multimedia in education				
Status: elective				
ECTS: 8				
Requirements: none				
Learning objectives Enabling students for efficient application of multimedia in science education.				
Learning outcomes <i>After successful completion of the course, a student is able to:</i> 1. define multimedia and list the basic elements of multimedia and their properties; 2. list and explain the importance of visualization in science education; 3. download educational multimedia materials for different sources and use them efficiently in class; 3. record and edit educational video/clips in science education; 4. design PowerPoint presentations with incorporated multimedia elements and applies them to different educational situations; 5. design multimedia didactic games for use in science education.				
Syllabus <i>Theoretical instruction:</i> Multimedia/definition and history. Basic elements of multimedia (text, picture, sound, animation video) and their properties. Visualization in science education. Educational video clips in the role of demonstration experiment. Complex multimedia elements. Simulations, presentations, didactic games. Pedagogical implications of multimedia application in science education. Teaching aids in multimedia surroundings (hardware and software). Principles for design of multimedia instructional materials. Sources of multimedia content: educational CD, encyclopaedia, e-textbook. Instructional multimedia materials on internet. <i>Practical instruction:</i> Designing and making the basic multimedia elements. Software for editing graphic elements. Software for recording and editing audio and video clips. Design and editing of educational movies – using software Windows Live Movie Maker, and software for conversion of audio and video formats. Design of instructional PowerPoint presentations. Incorporation of multimedia elements into presentations. Making simple didactic games. Download the multimedia educational content from the Internet.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 4	Other forms of teaching: 0	Student research:	