

BACHELOR 'S PROGRAMME  
1<sup>ST</sup> YEAR OF STUDY, 2<sup>ND</sup> SEMESTER

COURSE TITLE	<b>APPLIED INFORMATICS IN GEOSCIENCES</b>
COURSE CODE	JT2411
COURSE TYPE	full attendance/ tutorial
COURSE LEVEL	1 <sup>st</sup> cycle (bachelor's degree)
YEAR OF STUDY, SEMESTER	1 <sup>st</sup> year of study, 2 <sup>nd</sup> semester
NUMBER OF ECTS CREDITS	5
NUMBER OF HOURS PER WEEK	4 (2 lecture hours + 2 seminar hours)
NAME OF LECTURE HOLDER	Associate Professor Daniel CONDORACHI
NAME OF SEMINAR HOLDER	Assistant Professor Lucian Ionut ROSU
PREREQUISITES	Advanced level of English
<b>A</b>	<b>GENERAL AND COURSE-SPECIFIC COMPETENCES</b>
	<p><b>General competences:</b></p> <ul style="list-style-type: none"> <li>→ Acquiring the adequate professional and transversal competencies, according to the specific requirements of the subject and the qualifications listed in the National Index of Higher Education Qualifications (RNCIS) for Geography of Tourism</li> </ul> <p><b>Course-specific competences:</b></p> <ul style="list-style-type: none"> <li>→ Describes the basic hardware and software packages in the study of Geography of Tourism</li> <li>→ Use hardware and software equipments specialized for Geography of Tourism</li> <li>→ Calculate different indexes which are often used for evaluating the tourism system</li> </ul>
<b>B</b>	<b>LEARNING OUTCOMES</b>
	<ul style="list-style-type: none"> <li>→ Analyze graphs, maps obtained by computer computing methods</li> <li>→ Explain how the programs used the numerical analysis work</li> <li>→ Design Graphical, numerical and textual informations to the field of Geography of Tourism</li> <li>→ Lay out the results of the study in portofolios which will contain files such as ".ppt", ".doc", ".xls", ".odt", ".ods", ".odp", ".svg", ".ai", ".Cdr", ".psd", ".pdf", ".jpg", ".tif", etc</li> <li>→ Apply the information gathered in the elaboration of the thematic papers for the study diagrams specified in the curriculum and for the elaboration of the bachelor thesis</li> </ul>
<b>C</b>	<b>LECTURE CONTENT</b>
	<p>Computing systems architecture  Basic hardware systems management  Digital geographic information: raster system  Digital geographic information: vector system  Operating systems. Using Windows operating system. Software products  Understanding software systems and their management  Using word processor softwares  Using statistical softwares  Using aided design softwares for presentations  Using raster based software for geographical data processing  Using vector based software for geographical data processing  Network, internet and ethics for software and data use for teaching and research</p>
<b>D</b>	<b>RECOMMENDED READING FOR LECTURES</b>
	<ol style="list-style-type: none"> <li>1. Computer Fundamentals Copyright© 1997 Sean Walton – <a href="https://www.cs.utah.edu/~swalton/Documents/Computer-Fundamentals.pdf">https://www.cs.utah.edu/~swalton/Documents/Computer-Fundamentals.pdf</a> accessed december 2018.</li> <li>2. Advanced geoinformation science / editors, Chaowei Yang ... [et al.]. 2011 by Taylor and Francis Group, LLC CRC Press</li> <li>3. Basics of Geomatics , Mario A. Gomasasca, 2009, Springer science.</li> <li>4. Handbook on geographic information systems and digital mapping, Department of Economic and Social Affairs Statistics Division , United Nations, NY, 2000, pdf. <a href="https://unstats.un.org/unsd/publication/SeriesF/SeriesF_79E.pdf">https://unstats.un.org/unsd/publication/SeriesF/SeriesF_79E.pdf</a></li> <li>5. Encyclopedia of GIS - Shashi Shekar • Hui Xiong (Eds.) Springer Science, 2008</li> </ol>
<b>E</b>	<b>SEMINAR CONTENT</b>
	<p>Components of computing systems. Lodging quick access to Microsoft Windows operating system functions.  The main services offered by the Internet and how to use them respecting ethical standards</p>

	<p>Use of software for text editing (creation and use of master documents and layout documents)  Using text editing software (creating and using text styles, paragraph, list and page)  Use of software for text editing (inserting images, tables, sketches and automatic creation of content and lists)  Use of software for tabular computing. Table structure of geographic information, basic statistical calculations (sum, arithmetic average, weighted average, geometric mean, relative frequencies), representation of geographical information in the form of graphs  Using software designed to achieve assisted presentations  Use of software products for editing graphic information in a vectorial system  Use of software for editing graphic information in a raster system  The use of software products for the processing and design of graphic design  Digital representation of geographical (spatial) information</p>						
F	<p>RECOMMENDED READING FOR SEMINARS</p> <ol style="list-style-type: none"> <li>1. Competențe digitale - <a href="http://www.competentedigitale.ro/">http://www.competentedigitale.ro/</a></li> <li>2. Wang W, Microsoft Office 2016 for Dummies, 2016, Wiley Indicia PvtLtd,</li> <li>3. What is raster data <a href="http://webhelp.esri.com/arcgisdesktop/9.2/index.cfm?TopicName=What_is_raster_data%3F">http://webhelp.esri.com/arcgisdesktop/9.2/index.cfm?TopicName=What_is_raster_data%3F</a></li> <li>4. Introduction to Vector Data <a href="http://www.indiana.edu/~gisci/courses/g338/lectures/introduction_vector.html">http://www.indiana.edu/~gisci/courses/g338/lectures/introduction_vector.html</a> www.microsoft.com/windows</li> <li>5. Longley P.A., Goodchild M.F., Maguire D.J., and Rhinnd D.W., 1991 - Geographic Information Systems, Wiley - <a href="http://www.wiley.com/legacy/wileychi/gis/volumes.html">http://www.wiley.com/legacy/wileychi/gis/volumes.html</a></li> <li>6. Burrough P., McDonnell Rachael (1998) - Principles of Geographical Information Systems, Oxford University Press, Oxford.</li> <li>7. Introduction to Vector Data <a href="http://www.indiana.edu/~gisci/courses/g338/lectures/introduction_vector.html">http://www.indiana.edu/~gisci/courses/g338/lectures/introduction_vector.html</a> www.microsoft.com/windows</li> <li>8.***www.canva.com</li> <li>9. ***Wordpress documentation <a href="http://learn.wordpress.com/">http://learn.wordpress.com/</a></li> <li>10.*** Microsoft 10 documentation <a href="https://support.microsoft.com/en-us/help/30055/windows-10-surface-book-microsoft-edge-quick-start-guides">https://support.microsoft.com/en-us/help/30055/windows-10-surface-book-microsoft-edge-quick-start-guides</a></li> </ol>						
G	<p>EDUCATION STYLE</p> <table border="1"> <tr> <td>LEARNING AND TEACHING METHODS</td> <td>Lecture, didactic explanation, heuristic coversation, video projection, problem solving method, computer modeling and representation, exercise, applicative activities in the laboratory</td> </tr> <tr> <td>ASSESSMENT METHODS</td> <td>Performance Evaluation + Seminar Grades</td> </tr> <tr> <td>LANGUAGE OF INSTRUCTION</td> <td>English</td> </tr> </table>	LEARNING AND TEACHING METHODS	Lecture, didactic explanation, heuristic coversation, video projection, problem solving method, computer modeling and representation, exercise, applicative activities in the laboratory	ASSESSMENT METHODS	Performance Evaluation + Seminar Grades	LANGUAGE OF INSTRUCTION	English
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