

## SYLLABUS

### 1. Information about the program

1.1 Institution of higher education	Babeş-Bolyai University, Cluj-Napoca
1.2 Faculty	Faculty of Geography
1.3 Department	Regional Geography and Territorial Planning
1.4 Study area	Geography
1.5 Level of study	MA Studies
1.6 Program of study	Tourism Planning and Development

### 2. Information about the course

2.1 Title of the course	<b>ANNALYSIS TECHNIQUES IN TOURISM</b>						
2.2 Course taught by:	PhD. Lecturer Silviu Fonogea						
2.3 Seminar by:	PhD. Lecturer Silviu Fonogea						
2.4 Year of study	<b>I</b>	2.5 Semester	<b>1</b>	2.6 Method of assessment	<b>C</b>	2.7 Type of course	<b>DOp.</b>

### 3. Time allocation (hours per semester of pedagogical activities)

3.1 Hours per week	3	Of which:	3.2	2	3.3 seminar	1
3.4 Total hours - semester	42	Of which:	3.5	28	3.6 seminar	14
Time allocation						Ore
Study for exams						17
Additional documentation in the library, on the internet and in the field and working on the semester project and presentation						20
Reading for the seminar and writing the projects						12
Tutoring						5
Exams						4
Other.....						
<b>3.7 Total hours for individual study</b>	<b>58</b>					
<b>3.8 Total hours per semester</b>	<b>125</b>					
<b>3.9 Number of credits</b>	<b>5</b>					

### 4. Prerequisites (if any)

4.1 curriculum-related	Geographical Information System
4.2 competence-related	Computer assistance abilities

### 5. Other requirements (if any)

5.1. for the course	Computer/laptop, internet connection
5.2. for the seminar	Computer/laptop, internet connection and specific software

6. Competencies	
<b>Generic</b>	<ul style="list-style-type: none"> <li>• C1 Initiation in the systemic analysis and interpretation of geographical components on levels of holarchic integration and identification inside territorial unities of the ideal tools of environment assessment</li> <li>• C2 Proper use of geodatabases for a sustainable management of specific geographical issues</li> <li>• C3 Analysis (understanding and explaining) of geographical phenomena using GIS modeling</li> <li>• C4 Acquiring of technical skills and developing territorial investigation ability using satellite imagery in ArcGis</li> </ul>
<b>Specific</b>	<ul style="list-style-type: none"> <li>• CT1 Integrative assessment of elements structured under data bases unities and development of techniques of interdisciplinary operational geographical research</li> <li>• CT2 Knowledge of the work methods used in geographical analysis, especially the computer-based ones</li> <li>• CT3 Further deepening of the abilities necessary for the multidisciplinary cooperation, for communication and partnership relations based on acquired knowledge and development of trans disciplinary scientific reasoning</li> <li>• CT4 Self-evaluation of continuous professional development with the aim of integration and adaptability to the labor market requirements</li> </ul>

### 7. Course objectives

7.1 General goals	The course intends to familiarise the students with the investigation principles, techniques and technologies of GIS and remote sensing (the latest method of earth-surface investigation), its main purpose being the acquirement of a basic set of knowledge regarding GIS applicability in land management and the analysis of tourist phenomenon
7.2 Specific objectives	<ul style="list-style-type: none"> <li>- acquiring skills on geographical data and software management</li> <li>- getting started into ArcGIS commands</li> <li>- basic general knowledge about satellite imagery processing</li> <li>- the ability of putting together high complexity GIS projects</li> </ul>

### 8. Outline

8.1 Course	Teaching methods	Observations
Systems of internal representation of digital maps Representation of maps on thematical layers	Exposition combined with active-participative methods	2 h
Digitisation	Systematic and independent observation Computer-based learning	2 h
Geodatabase Questioning the geodatabasis Updating the geodatabase	Oral presentation with interactive sections Heuristic conversation explanation use of specialized software	2 h
Remote sensing: general issues. The advantage of indirect investigation of the earth surface. General notions on electromagnetic waves	Oral presentation, conversation, exposition, combined with active-participative methods	2 h
Working with remote sensing data	Oral presentation, conversation, use of specialized software	4 h
Thematical photo-interpretation	Oral presentation, conversation, use of specialized software	2 h

Integration of digital imagery in GIS for obtaining digital maps	Heuristic conversation, explanation, use of specialized software	4 h
Spatial analyst – territorial complex investigation tool. Case study: the optimal context for the setting of an accommodation structure in a territorial administrative unit	Oral presentation, conversation, exposition, combined with active-participative methods, use of specialized software	2 h
Intelligence, inspiration, context – guidelines for a proper tourist advertisement. Case study – Gărâna village	Oral presentation, conversation, exposition, combined with active-participative methods	2 h
Territorial perception and identity. Touristic geobranding	Oral presentation, conversation, exposition, combined with active-participative methods	4 h
Touristic recovery of territories' historical memory: restoring medieval castles. Case study: Ciceu Fortress	Oral presentation, conversation	2 h

<b>References</b>		
1. Benedek J., (2004), <i>Amenajarea teritoriului și dezvoltarea regională</i> , Editura Presa Universitară Clujeană, Cluj-Napoca.		
2. Cocean P., (2007), <i>Geografia turismului</i> , Editura Focul Viu, Cluj-Napoca.		
3. Cocean P., Dezsi S., (2001), <i>Prospectare și geoinformare turistică</i> , Editura Presa Universitară Clujeană, Cluj-Napoca.		
4. Imbroane Al. M., Moore D., (1999), <i>Inițiere în GIS și teledetecție</i> , Editura Presa Universitară Clujeană, Cluj-Napoca.		
5. James B. Campbell and Randolph H. Wynne, 2011, <i>“Introduction to Remote Sensing”</i> , The Guilford Press.		
6. Mihai B., (2008), <i>Teledetecție. Noțiuni generale</i> , Editura Credis, București.		
7. Mihai B., (2009), <i>Teledetecție. Noțiuni și principii fundamentale</i> , Editura Universității din București.		
8. Ryerson, B. and S Aronoff, 2010, <i>“Why Where Matters: Understanding and Profiting from GPS, GIS and Remote Sensing”</i> , Manotick, ON: Kin Geomatics, 378 pp.		
<b>8. 2 Seminar</b>	<b>Teaching methods</b>	<b>Observations</b>
Introduction into ArcGIS	use of specialized software ; interactive teaching methods (conversation, demonstration, observation, problematisation, experiment and modelling);  action-based teaching methods (exercise, algorithm, computer-based thematical application).	2 h
Digitization in ArcGIS. Geocodification		2 h
Map creation. Layout operations		2 h
Spatial analysis		2 h
Complex map diagrams for an accommodation structure		2 h
Uploading and visualisation of satellite imagery. Monoband and multiband visualisation. Putting together a stack, combining bands, true colour and false colour visualisation		2 h
Image classification. Normalised difference indexes computing		2 h

## References

1. Mather P. M., (2000), *Computer processing of Remotely-Sensed Images*, John Wiley & Sons, Chichester, England.
2. Mihai B., (2007), *Teledetectie. Vol 1. Procesarea digitală a imaginilor*, Editura Universității din Bucuresti.
3. Sabins F.F., (1997), *Remote Sensing. Principles and Interpretation*, W.H. Freeman & Co, New York.
4. \*\*\*, *ERDAS Field Guide*, ERDAS Inc, Atlanta, Georgia, USA, 2002.
5. \*\*\*, *ERDAS Tour Guide*, ERDAS Inc, Atlanta, Georgia, USA, 2002

[www.eurimage.com](http://www.eurimage.com)

[www.spotimage.com](http://www.spotimage.com)

[www.orbimage.com](http://www.orbimage.com)

[www.satimage.com](http://www.satimage.com)

[www.spaceimaging.com](http://www.spaceimaging.com)

[www.spaceimagingeurope.com](http://www.spaceimagingeurope.com)

[www.jpl.nasa.gov](http://www.jpl.nasa.gov)

[www.asterweb.jpl.nasa.gov](http://www.asterweb.jpl.nasa.gov)

<http://rst.gsfc.nasa.gov/>

[http://earth.esa.int/applications/data\\_util/SARDOCS/spaceborne/Radar\\_Courses/](http://earth.esa.int/applications/data_util/SARDOCS/spaceborne/Radar_Courses/)

<http://www.crisp.nus.edu.sg/~research/tutorial/image.htm>

[http://www.ccrs.nrcan.gc.ca/ccrs/learn/tutorials/fundam/fundam\\_e.html](http://www.ccrs.nrcan.gc.ca/ccrs/learn/tutorials/fundam/fundam_e.html)

<http://octopus.gma.org/surfing/satellites/index.html>

## 9. Harmonize the content of the discipline with the expectations of representatives of the epistemic community, professional associations and representative employers in the field of the program

- The content of this discipline puts into light the latest orientation and practices in geographical research.

## 10. Assessment and evaluation

Type of activity	10.1 Criteria for assessment	10.2 Method of assessment	10.3 Percent of final grade
10.4 Course	<ul style="list-style-type: none"> <li>• Evaluation of the degree of systematization and use of the acquired knowledge;</li> <li>• Logical coherence and argumentative force;</li> <li>• Degree of the assimilation of special terminology;</li> </ul>	Oral assessment Active participation to courses	50%
10.5 Seminar	<ul style="list-style-type: none"> <li>• Capacity of putting it into practice;</li> <li>• Capacity of operating with the acquired knowledge;</li> </ul>	Project assessment Active participation to seminars	50%

### 10.6 Minimum performance standard

- Complex map creation

Date  
15.04.2021

Signature course lecturer  
PhD. Lecturer Silviu-Florin Fonogea

Signature seminar lecturer  
PhD. Lecturer Silviu-Florin Fonogea

Date of departmental approval

Signature department chair  
Associate Professor Iuliu Vescan, PhD