

**Geographic Information Systems Applied to Planning**

Code: 104274  
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	OT	4	2

**Contact**

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**Use of Languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Other comments on languages**

Hi haurà lectures en anglès.

**Teachers**

Veronica Elizabeth Mejia Juarez

**Prerequisites**

There are no pre-requisites.

**Objectives and Contextualisation**

Contextualization:

This subject is taught in the Fourth Year of the Degree in Geography, Environmental Management and Spatial Planning. Training objectives of the subject:

Spatial planning is essentially a process where the decision-making of the public administration determines the guidelines for the location of collective facilities, the mobility rules for the land uses of a territory.

It is very important to know the most significant regulations to develop an territory and resources.

Previously, a basic knowledge of the methodology and procedures in the laws and regulations that are applicable in territorial or sectoral planning, Pose and solve cases of territorial planning analysis using various types strategic.

Use of geographic information at various scales, performing the process interpretation of results.

Develop self-employment

and professional skills.

## Competences

- Critically analyse the relationship between society and the region applying the conceptual and theoretical framework of geography.
- Explain and represent territorial processes using statistical techniques, and graphic, cartographic and geographical information representations.
- Generate innovative and competitive proposals in professional activity.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

## Learning Outcomes

1. Apply GIS for regional planning and management from physical, regional and human geographical viewpoints.
2. Differentiate between different cartographical information systems.
3. Generate innovative and competitive proposals in professional activity.
4. Perceive GIS as an instrument to provide results for specific questions.
5. Recognise the two models of data used to represent reality (vector and raster data models)
6. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
7. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

## Content

Spatial planning models represent a synthesis, methodologically formalized, between the bases theoretical principles on which the models of spatial analysis, the applica georeferenced data, normative-ideological and planning constraints; as v specific reflected in each plan. It is intended that the student learn the ge spatial planning model as well as some types of specific models. Special attention will be paid to the territorial planning of the strategic ser population. These are tools that provide important social and economic p they have a transversal character: they cover all types of territory and ha important in these territories.

## Methodology

The course will be structured from directed activities and autonomous activities where the student will learn to de

The contents of the subject will be developed through the following activi

- 1) Readings and follow-up of the course material.
- 2) Reading of books and articles (individual activity of the students comp
- 3) Carrying out practical exercises in simulated scenarios based on GIS.
- 4) Final work, related to the class syllabus and the practical exercises.

The practical activity is structured in three axes:

- a. Guided and tutored practices in each of the topics.
- b. Verification of theoretical and methodological knowledge.
- c. Completion of a final project that combines the theory of the course.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Theoretical and practical classroom classes	47	1.88	1, 2, 3, 4, 7, 6, 5
Type: Supervised			
Supervision of course work	20	0.8	1, 2, 3, 4, 7, 6, 5
Type: Autonomous			
Autonomous study and realization of internships and coursework	81	3.24	1, 2, 3, 4, 7, 6, 5

## Assessment

The assessment is continuous, therefore, in order to achieve the knowledge it is necessary to follow up throughout the course.

Written test (35%)

Internships (25%)

Course work (40%)

The final grade is based on the weighted average of the three assessments.

Assessment of the exam: The theoretical part will assess the relevance of the concepts.

Assessment of the practices: The formal aspects, the correct calculation of the results.

structured analysis AGD: Application of Teaching Guides v2.1 [https://guies.uab.cat/guies\\_docents/admin/guia.jspx](https://guies.uab.cat/guies_docents/admin/guia.jspx)

in the specific case of the analyzes of the texts will value especially the capacity to extract and expose the most relevant information.

Assessment of the course work: The formal aspects, the approach of the objectives, the problem and the model.

the resolution of the results, their interpretation, conclusions and its public exhibition, if any.

## Review of grades

At the time of carrying out each evaluation activity, the teacher will inform the student of the results and the recovery process.

To participate in the recovery CAL:

- have previously been assessed in a set of activities whose weight is eq
- have obtained a minimum final grade of not less than 3.5 (out of 10).
- have obtained a minimum grade in the written test of 3.5 (out of 10).
- have delivered the activity within the established calendar. An activity n

Not evaluable

The student will receive the grade of Not assessable as long as he has n of evaluation.

Plagiarism

In the event that the student commits any irregularity that could lead to a

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Assignments	25	0	0	1, 2, 3, 4, 7, 6, 5
Exam	35	2	0.08	1, 2, 3, 4, 7, 6, 5
Term paper	40	0	0	1, 2, 3, 4, 7, 6, 5

## Bibliography

Models de Planificació Territorial

SOME REFERENCES WILL BE ADDED.

Bibliografia

Castañer, Margarida (Editora) (2012). El planejament territorial a Catalunya a inici del segle XXI. Una nova interpretació i projecció del país. Barcelona: Societat Catalana d'Ordenació del Territori.

Baum, Joel A. C. i Sorenson, Olav (Ed.) (2003). "Introduction: The strategic management of space and place" in Baum, Joel A. C. i Sorenson, Olav (Ed.) Geography and strategy. Oxford: Elsevier Sciencet Ltd. pp.: 1-21.

Lee, Sang M. and Moore, Laurence J. (1975). Introduction to decision science. New York: Petrocelli Carter Inc.

Pallares-Barbera, Montserrat (2003). "Geografia econòmica i localització industrial." Documents d'Anàlisi Geogràfica, 42: 171-182.

Tadelis, Steven (2012). Game theory: An introduction. New Jersey (USA): Economics Books Princeton University Press.

Eastman, Ronald (2001). "Uncertainty Management in GIS: Decision Support Tools for Effective Use of Spatial Data Resources." In: Hunsaker C.T., Goodchild Michael F., Friedl M.A., Case T.J. (Eds) Spatial Uncertainty in Ecology. Springer, New York, NY, pp. 379-390.

Schelling, Thomas. "An Essay on Bargaining." In The Strategy of Conflict. Cambridge, MA: Harvard University Press, 1960, 1980, pp. 21-52. ISBN: 0674840313.

## Software

ArcGIS will be used.