



SC

**GEOG2150 Modélisation statistique en géographie**

[30h+30h exercices] 5 credits

**Teacher(s):** Dominique Peeters (coord.), Isabelle Thomas  
**Language:** french  
**Level:** 2nd cycle course

**Aims**

Introduction to quantitative analysis of geographical data

**Main themes**

The course examines a few aspects (list hereafter) of data analysis relative to geographical problems. For each aspect, the course gives: 1) a technical presentation and critique of quantitative methods available, 2) the principals guiding the choice of these methods, 3) the modalities of application to spatial problems 4) a geographical interpretation of methodologic processes and of their results. The six aspects come upon are the following: 1) descriptive geographical indicators (localisation, centrality, association, shift-and-share, etc.) 2) description and statistical inference, testing, hypothesis tests, 3) analysis of distribution types of points in 2D space 4) relations between geographical variations, correlation and simple and multiple regression. 5) synthesis techniques, component analysis, factors 6) Methods of numerical classification, typologies and regionalization. The practical exercises are applications to these six aspects. They illustrate the possibilities and sensibility to characteristics of data seen here. They also interpret the results obtained by the computer programs of data treatment.

**Other credits in programs**

<b>GEOG21</b>	Première licence en sciences géographiques	(5 credits)	Mandatory
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