

# Géomorphologie structurale et dynamique

## Lecturer

Frank PATTYN (Coordinator)

## Course mnemonic

GEOG-F102

## ECTS credits

5 credits

## Language(s) of instruction

French

## Course period

Second term

- > Christopherson, R. W. (2005) Geosystems: An introduction to physical geography, Pearson prentice Hall
- > Hamblin, W. K. & E. H. Christiansen (1995) Earth's Dynamic Systems, Eighth Edition, Prentice-Hall
- > Newman, W. I. (2012) Continuum Mechanics in the Earth Sciences, Cambridge University Press
- > Press, F. & R. Siever (1999) Understanding Earth, Second Edition, W. H. Freeman and Company
- > Marshak, S. (Trad. Olivier Evrard), 2014, Terre, portrait d'une planète, de Boeck Université .

## Other information

### Contact(s)

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### Evaluation method(s)

Oral examination

### Evaluation method(s) (additional information)

Oral exam

### Determination of the mark (including the weighting of partial marks)

50% theory / 50% practicum

### Main language(s) of evaluation

French

## Programmes

### Programmes proposing this course at the faculty of Sciences

BA-GEOG | Bachelor in Geography : General | unit 1 and BA-GEOL | Bachelor in Geology | unit 2

### Programmes proposing this course at the faculty of Philosophy and Social Sciences

MS-ARCS | Specialized Master in Archaeological Science | unit U

## Course content

Structural geomorphology : role of plate tectonics in the relief formation at the Earth's surface: structural relief of sedimentary basins, faults and folds, relief of cratons and old orogens, relief developed in volcanic areas. Cartographic vision of the principle sutures based on comparison of topographic and geologic maps. Excursion in Belgium (south of Sambre-Meuse).

## Objectives (and/or specific learning outcomes)

General overview of the influence of the structure and tectonics on relief formation at the surface of the Earth. Students should recognise structural reliefs on maps and in the field and to put them in a paleoclimatic context. An excursion report needs to be written.

## Teaching method and learning activities

Lectures (theorie) and classroom exercises

## References, bibliography and recommended reading

- > Ahnert, F. (1996) Introduction to Geomorphology, John Wiley and Sons
- > Allen, P. A. (1997) Earth Surface Processes, Blackwell Science Ltd.
- > Anderson, R. S. & Anderson S. P. (2011) Geomorphology: the mechanics and chemistry of landscapes, Cambridge University Press