UCLouvain

## Iclim2170

2024

# Field in climatology 1

| 5.00 credits 60.0 h + 30.0 h Q2 |
|---------------------------------|
|---------------------------------|

### (!)

### This biannual learning unit is not being organized in 2024-2025!

| Teacher(s)          | Vanacker Veerle ;  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|
| Language :          | French > English-friendly  |  |  |  |  |  |
| Place of the course | Louvain-la-Neuve   |  |  |  |  |  |
| Prerequisites       | It is necessary to have passed succesfully the courses on « Geomorphology (LGEO1331) », « Remote sensing (LGEO1343) », Geography of Belgium (LGEO1381) or equivalent courses in geography. Exchange students need to contact the lecturers before the start of the semester as to guarantee a place for the 5-day excursion.   |  |  |  |  |  |
| Main themes         | Two-yearly field excursion, organised for students of the Master programmes in geography. Field excursion to the French (Pre)Alps organised in June 2024.  |  |  |  |  |  |
| Learning outcomes   | At the end of this learning unit, the student is able to : The competences that will be developed in this course are :   |  |  |  |  |  |
|                     | Capacity to identify, characterise and analyse environmental problems in the field, based on field observations  |  |  |  |  |  |
|                     | <ul> <li>and measurements</li> <li>Capacity to present alternatives for sustainable development of the environment in relation to the conceptual models that have been presented during the courses (LGEO2140, LGEO210, LGEO2110).</li> <li>Capacity to understand and use correctly the terminology of physical and human geography during debates and discussions in the field</li> </ul>  |  |  |  |  |  |
|                     | At the end of the course, the students will have   |  |  |  |  |  |
|                     | Developed an interest for geographical questions related to sustainable development and climatic change that are present in the alpine region     Reinforced their capacity to work in team  |  |  |  |  |  |
| Evaluation methods  | The evaluation is based on three components:   |  |  |  |  |  |
|                     | <ol> <li>A project on one of the four transversal themes that will be addressed during the excursion. This project is based on the review of a minimum of two to three scientific papers and/or book chapters.</li> <li>An oral presentation of your project during the field excursion. The presentation needs to incorporate the elements that were discussed during the excursion, the complementary articles and/or book chapters and the obliged reading materials.</li> <li>Contructive participation during the field campaign, measurements, reports and discussions.</li> </ol> |  |  |  |  |  |
| Teaching methods    | Biennial field excursion organised for Master students in Geography. 5-day excursion in the (pre-)alpine mountain ranges in June 2024, 2026.   |  |  |  |  |  |
|                     | Alternation between classical field excursion with stops on specific viewpoints, and field measures in small groups (questionnaires, geomorphological mapping, analysis of fluviomorphology). Individual presentations by the students during the field excursion, on a geographic theme, and that is based on a solid literature review.  |  |  |  |  |  |
| Content             | This course aims to (1) analyse alpine ecosystems, with specific focus on physical geography and human and socio-economic geography, and (2) apply geographical techniques and methods to acquire field data (including geomorphological mapping, questionnaires, and GPS surveys).  |  |  |  |  |  |
|                     | The following topics are discussed during the field excursion: sustainable development of a rural and remote mountainous region, conservation of biodiversité and the environment, human-landscape interactions, and climate variability and change over the last 15.000 years and its impact on natural risks.  |  |  |  |  |  |
| Inline resources    | The material is available on the Moodle page of the course.  |  |  |  |  |  |

#### Université catholique de Louvain - Field in climatology 1 - en-cours-2024-lclim2170

| Bibliography                | <ul> <li>Bintz, P., Griggo, C., 2011. Climats et premiers peuplements des Alpes du Nord francaises: des derniers chasseurs aux premiers paysans. Revue de primatology 13. DOI 10.4000/primatologie.789</li> <li>Hoblea, F. 2014. In the Folds of the Earth: French Prealpine Geomorphological Landscapes. In: M. Fort and M.F. André (Eds), Landscapes and Landforms of France, World Geomorphological Landscapes, Springer, Dordrecht. DOI 10.1007/978-94-007-7022-5_18.</li> <li>Lamarque P. and Lambin E.F. 2015. The effectiveness of marked-based instruments to foster the conservation of extensive land use: The case of geographical indications in the French Alps, Land Use Policy, 42: 706-717. https://doi.org/10.1016/j.landusepol.2014.10.009.</li> <li>Le Roux, O. 2011. Characterization of the geomorphological evolution of the lower Romanche valley (Isère, France) in relation to the gravitational instabilities of its rock slopes [Caractérisation de l'évolution géomorphologique de la basse vallée de la Romanche (Isère, France) en relation avec les instabilités gravitaires de ses versants rocheux], Bulletin of Engineering Geology and the Environment, 70 (3): 483-495. DOI: 10.1007/s10064-010-0325-8</li> <li>Thibert, E, Bodin, X. Changes in surface velocities over four decades on the Laurichard rock glacier (French Alps). Permafrost and Periglac Process. 2022; 33(3): 323-335. doi:10.1002/ppp.2159</li> </ul> |
|-----------------------------|--|
| Other infos                 | Participation in the field excursion is mandatory. The field excursion is organized only once during the year. It is impossible to redo them in the second session, or in another year.  |
| Faculty or entity in charge | GEOG   |

| Programmes containing this learning unit (UE) |         |         |              |                   |  |  |  |
|---|---------|---------|--------------|-------------------|--|--|--|
| Program title                                 | Acronym | Credits | Prerequisite | Learning outcomes |  |  |  |
| Master [120] in Geography :<br>Climatology    | CLIM2M  | 5       |              | <b>Q</b>          |  |  |  |