Geology

1. **Course number and name:** 020GELCI4 Geology

2. **Credits and contact hours:** 2 ECTS credits, 1x1:15 contact hours

3. **Name(s) of instructor(s) or course coordinator(s):** Soumaya Ayadi

4. **Instructional materials:** PowerPoint slides

5. **Specific course information**
   a. **Catalog description:**
      This course aims to introduce fundamental concepts of geology. It focuses on the structural geology, stratigraphy and petrography.
      It covers the brittle and ductile deformation and explains the behavior of material in front of different kind of stress, extensive and compressional.
      It also presents the different types of rocks, their genesis context, their physical properties and their organoleptic classification.

   b. **Prerequisites:** None

   c. **Required/Selected Elective/Open Elective:** Required

6. **Educational objectives for the course**
   a. **Specific outcomes of instruction:**
      - Recognize the internal structure of the earth by analyzing the seismic waves velocity and propagation
      - Identify the material competence by analyzing their behavior facing a stress
      - Make a coherent structural and stratigraphic analysis of the outcropping geologic structures
      - Understand and recognize the different kind of rocks by their identification criteria

   b. **PI addressed by the course:**

PI	7.1
Covered	x
Assessed	

7. **Brief list of topics to be covered**
   - Internal structure of the earth (1 lecture)
   - Structural Geology
     - Concept of general Tectonic (1 lecture)
     - Brittle deformation (2 lectures)
     - Ductile deformation (2 lectures)

    - Tangential tectonics (1 lecture)
    - Cartography (1 lecture)
- Stratigraphy - Relative chronology (2 lectures)
- Materials of the Earth's crust: Mineralogy- petrography
    - Mineralogy: Crystallization and identification criteria (1 lecture)
    - Igneous, sedimentary and metamorphic rocks (2 lectures)
    - Sedimentary rocks, identification criteria (1 lecture)