

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **SYLLABUS DEL CORSO**

# **Critical Raw Materials and Their Environmental Impact**

2425-1-124R010

#### **Title**

**Critical Raw Materials and their Environmental Impact** 

# Teacher(s)

Alessandro Cavallo

#### Language

**English** 

# **Short description**

Critical raw materials: REE, PGE, Sb, Be, Co, Ga, Ge, In, Li, Mg, Re, Nb, Ta, W, critical industrial minerals (e.g. barite and fluorspar).

The following topics will be covered for each critical raw material:

- 1. Chemistry and mineralogy
- 2. Ore deposits

- 3. Processing and industrial uses
- 4. Environmental issues, recycling and replacement
- 5. Hints at European legislation (e.g., Raw Materials Act) and possible developments.

Evaluation: short oral discussion on course content, consisting of 3 open-ended questions. Relevance and completeness of answers will be evaluated.

#### **CFU / Hours**

2 CFU - 16 Hours (Lecture)

# **Teaching period**

II semester

# **Sustainable Development Goals**

AFFORDABLE AND CLEAN ENERGY | INDUSTRY, INNOVATION AND INFRASTRUCTURE | RESPONSIBLE CONSUMPTION AND PRODUCTION | CLIMATE ACTION