



France: an excellent destination for continuous training in the mineral resources sector

Presentation of training opportunities

For many mineral-rich countries, the development of institutional competencies and human resources in the mining sector is a key challenge to ensure better contribution from this sector to socio-economic development. Companies themselves are interested in being able to recruit local, qualified staff for the needs of the mining sector. In some countries, such provisions are subject of legislation or specific policies as regards local content or subcontracting, sometimes placing obligations upon economic operators.

France has vocational and scientific training programmes in the mineral resources sector of world-renowned excellence. Its engineering training programmes are of particular repute, and many international managers of private and public sectors have already enjoyed that training.

Outside initial training in the framework of a university curriculum, several French establishments offer short-term training (days or months) to address the specific advanced training needs for skills required in the mineral resources sector.

This brochure is aimed at public or private sector bodies interested in continuous training courses and provides a general overview of French training opportunities.

Alès École des mines

The Alès École des mines (South-Eastern France) trains engineers in all components of mining activities: exploration, modelling and evaluation; feasibility studies, planning, mining operations and production; processing and transformation of mineral resources; environmental management and site rehabilitation; energy management; economics and management; health and safety and social responsibility.

- **Three certification programmes** are offered for students with a duration of one year: an “initial” course (RMCE – mineral resources and extraction) and two “specialized” courses (Mastère EEM – post master’s degree in “Mining Operations and Environment and ESERM – environment, safety and extraction of mineral resources). These programmes can be followed in attendance or in a work/study combined form (vocational learning contract).

- **Through its continuous training service,** the Alès École des mines places its scientific and technical expertise at the disposal of businesses and private clients in the form of short training programmes that are held on demand. Moreover, the RMCE, EEM and ESERM programmes are modular, meaning that they can also be given in the form of specific “on demand” training sessions. The cost of training is established by quote.

Website: <http://www.mines-ales.fr/rerelations-entreprises>
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MINES ParisTech

• MINES ParisTech, the École des Mines de Paris, has been training mining sector engineers since 1783, and over the last three decades has developed continuous training programmes and advanced courses aimed at an international audience.

• **Three training programmes are offered in the mineral resources sector:**

- Technical and economic analysis of mining operations (CESECO programme, 10 months);
- Applied geostatics for the mining sector (CFSG programme, 10 months);
- Public administration of mines (CESAM programme, 6 months).

These programmes may be followed completely, as part of a course leading to a certification (Mastère Spécialisé de la Conférence des Grandes Écoles – Specialized master’s diploma of the Conference of French Grandes Écoles), but **it is also possible to register for one or more modules independently in the form of vocational training**. Most of the modules last one or two weeks.

• All long and short courses are held at the Geosciences Centre of MINES ParisTech (Fontainebleau campus). Training sessions can also be organized “on demand” for specific requirements, for groups of at least 10 participants, either in France or abroad.

■ Website: http://www.geosciences.mines-paristech.fr/en/training?set_language=en
■ Contact: Jean-Alain Fleurisson, jean-alain.fleurisson@mines-paristech.fr

Mines Nancy

• **The Nancy École des mines** draws its expertise in geosciences and mining engineering from the rich mining heritage of France’s East. The school has been operating in Nancy since 1919, and the town is now 90 minutes only from Paris by train. That heritage, and its links with the research laboratories of the Université de Lorraine and the French National Centre for Scientific Research (CNRS), as well as its vast network of international collaborative projects, allow Mines Nancy to offer leading certifying training programmes in the field of mineral resources, including **a general engineer training programme and two specialized MSc programmes**: “mining and geological storage” (Master Géosciences GPRE) and “mineral raw materials, risk engineering and management” (international vocational training). On request, all or part of these programmes can be delivered as continuous training.

Alongside these two certifying programmes, **Mines Nancy also offers courses lasting a few days**, on various themes in the area of geosciences such as the geotechnics for underground mining (stability of excavations, numerical modelling, monitoring, etc.) and risk management (risk analysis and crisis simulation). These programmes, designed on request and aimed at professionals, can also be delivered abroad.

■ Website: <http://mines-nancy.univ-lorraine.fr>
■ Contact: Yann Gunzburger, yann.gunzburger@univ-lorraine.fr

Nancy École Nationale Supérieure de Géologie (ENSG) Geology school

• **ENSG is a leading establishment in the geosciences field** and has long-standing experience in vocational training in various areas of the field, including geology, petroleum geology, mineral commodities, information systems, environmental management and geotechnics.

• **The school provides its expertise for the design of tailored training courses** in the various fields mentioned above. Training can also be provided in English. The courses are generally taught on the ENSG campus in Nancy.

■ Website: <http://www.ensg.univ-lorraine.fr/>
■ Contact: Jean-Marc Montel, jean-marc.montel@ensg.univ-lorraine.fr



The vocational training provision of the French Geological Survey (BRGM: Office for Geological and Mining Research)

- The French Geological Survey (BRGM) offers internationally renowned scientific and technical expertise in all areas of geosciences.
- **BRGM Formation**, its integrated training body, puts that expertise to use in a range of 80 vocational courses from beginners' level through to advanced specialized courses. Several training programmes cover specializations related to mineral resources (geology, information systems, geochemistry, industrial rocks and minerals, process analysis, environmental assessment, post-mining, 3D modelling etc.).
- The courses last between one and five days and are run by BRGM engineers. They are held in Orléans or Paris. When required, they can also be held elsewhere in France or abroad. Tailored training programmes can also be organized. These may last longer – two weeks to a few months – and cover theoretical and practical aspects.

Website: <http://www.brgm.eu/key-roles/training-enag-school/training-enag-school>

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Further training leading to a diploma

Alongside the provision of short training courses, several French universities also offer courses leading to a diploma, at various study levels.

The list of the various courses available can be viewed on

the Mineralinfo website, the French portal for mineral commodities:
<http://www.mineralinfo.fr/page/organismes-formation>

Preparing for studying in France

France, the world's third largest destination for the reception and training of international students, has put in place arrangements to facilitate administrative formalities and, more generally, the reception of international students.

CampusFrance, the French agency for the promotion of higher education, reception and international mobility, provides practical information on all steps required to undertake and prepare for study in France, which can be consulted here:

<http://www.campusfrance.org/fr>

CampusFrance also has almost 80 local offices, managed directly by Espaces CampusFrance.

These offices offer initial information – in the 30 or so languages offered by the agency – for those interested in training in France.

Contacts

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