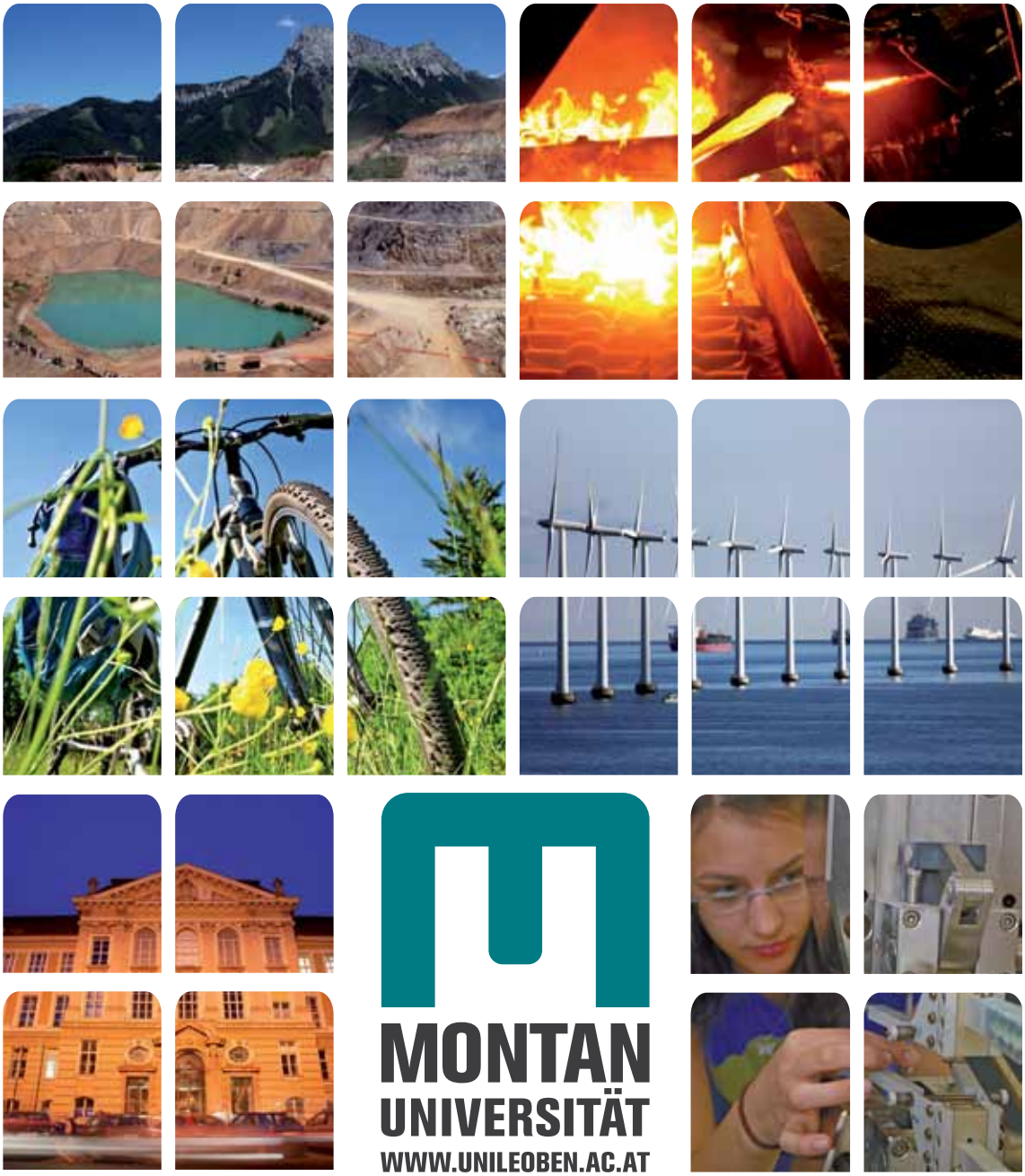
The Study Programmes of the Montanuniversität Leoben

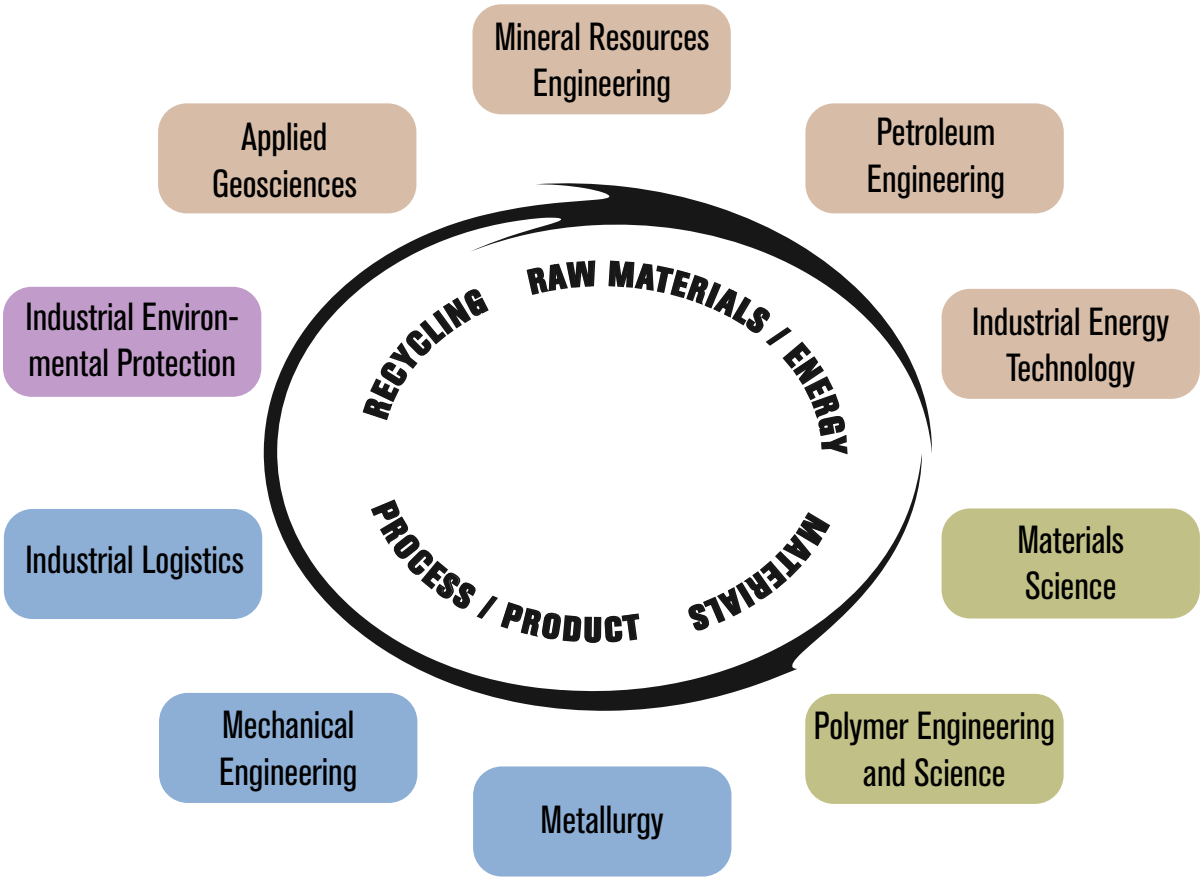


MONTAN
UNIVERSITÄT
WWW.UNILEOBEN.AC.AT

STUDIES FOR WINNERS

MONTAN UNIVERSITÄT

ADDED-VALUE FOR THE FUTURE



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STUDIES FOR WINNERS

It is the students that form the future potential of the Montanuniversität Leoben. Their academic excellence and social competence is a crucial factor for Austria's position in the global competition as a hub for industry and research.

As a technical university with a unique profile, the Montanuniversität Leoben claims a special position in both the Austrian and international academic landscape. The study programmes offered - with their specific focus areas - can only be pursued at Leoben. As a result, Montanuniversität graduates are amongst the most sought-after academics of all.

As one of the smallest universities in Austria, the Montanuniversität offers its students an outstandingly good infrastructure and the best possible attention from the academic staff. Due to its comfortable size, students benefit from the close cooperation with their lecturers, and any problems can be solved swiftly and efficiently. "Mass university" is a foreign concept in Leoben. The Montanuniversität has been ranked "best university" by HR managers for the fifth time in a row in a survey carried out by the Austrian magazine "Format".

First year of common studies

Studies are based along the value-added chain (page 2), from the raw materials and production materials, on to the finished product and to the end of the life cycle with recycling and disposal. The range of studies is complimented by multidisciplinary fields such as Industrial Energy Technology and Industrial Logistics.

The first year of studies, as an introductory phase for guidance and orientation, is the same for all students. As a result, students can switch study programmes seamlessly at the end of the first year without losing any time. In these first two semesters, particular attention is given to the basic subjects, and all first-year students are brought to a uniform academic level. In the beginning the curriculum covers the following subjects: physics, mathematics, computer applications and programming, chemistry, and mechanics. These courses are held in German.

Available degrees

All study programmes grant a Bachelor of Science degree after seven semesters. This is followed by a more in-depth master's programme (three or four semesters, depending on the programme) and a subsequent master's thesis. Upon successful completion of their graduate studies, students receive the academic title of "Diplomingenieur", which is equivalent to the qualification of a Master of Science. Afterwards students can opt for a doctoral degree (six semesters). During their studies, all students are required to complete a six-month internship at a company that is relevant to their fields of studies.

Excellent career prospects

The Montanuniversität is traditionally closely associated with industry and economics. Due to a large number of projects in cooperation with various companies, students are integrated very early into a network which will later provide them with many benefits and a headstart into the professional world. Thanks to the strong application-oriented style of instruction, students are always kept abreast of the latest developments and rapidly find themselves at home in their vocations.

Graduates from Leoben are in greater demand than ever before - and industry and the professional world are in need of even more experts.

"The Montanuniversität is an open-minded, international and value-based institution that features a unique profile. It is located in an attractive high-tech region with global networks to industry and research, and it is dedicated to the unity of excellent teaching and research."

Rector Wilfried Eichlseder

MONTAN UNIVERSITÄT

SERVICES

Pre-registration
www4.unileoben.ac.at/en/voranmeldung

Admission and enrolment

At some Austrian universities, different selection procedures have been introduced for a variety of study programmes in order to reduce the number of first-year students embarking on their studies. Our study programmes at Leoben are not affected by this problem, and there is no selection procedure. All Austrian high school students with a positive result in their final school examination can enrol at the Montanuniversität Leoben.

Admission international students

Whether you come as a regular degree student or as an exchange student, the International Relations Office and the Registrar's Office are committed to providing you with a meaningful academic and personal experience at the Montanuniversität Leoben.
For more information on enroling as an international student, please refer to our homepage at www.unileoben.ac.at/ir, providing you with all the relevant information for admission and the preparatory steps that need to be taken before your departure. For further questions on the admission process, contact admission@unileoben.ac.at.

University Preparation Programme

The University Preparation Programme offers intensive courses for international (non-EU citizenship) applicants for a place at the Montanuniversität Leoben. Participation in this program is prescribed by a notice, if the student cannot prove his/her proficiency in German and/or if supplementary examinations (e.g. in mathematics, physics, chemistry, descriptive geometry) are necessary for the equivalence of the secondary school leaving diploma.
E-mail: leoben@oead.at

First common year of studies

The first year of studies is identical for all programmes, thus first-year students may change their major without losing any time or having to take extra classes. The first two semesters provide the basic skills and knowledge required to study a technical subject, such as chemistry, physics, and mathematics. The Montanuniversität has plenty of practice and laboratory spaces available for all students so that there are no waiting times for lab courses.

Mentoring project

Right from the start, the Montanuniversität attaches great importance to personal support and mentoring. In order to facilitate the start into the academic world, first-year students are mentored by older students who will assist them during the orientation phase.

Austrian Student Union [Österreichische Hochschülerschaft – ÖH]

The Austrian Student Union is the legal representative body of all students in Austria. The homepage of the ÖH Leoben provides valuable tips concerning the beginning of your first year of studies and student life in Leoben.
Students are required to pay the ÖH fee in the amount of 18 euro per semester (as of Winter/Fall Semester 2013/14).
http://oeh.unileoben.ac.at

Important contact information

Montanuniversität Leoben
Franz-Josef-Strasse 18
8700 Leoben
Austria, Europe
Tel.: +43 3842 402 0
http://www.unileoben.ac.at

Rector's Office: +43 3842 402 7001 or
E-mail: rektor@unileoben.ac.at
Registrar's Office: +43 3842 402 7040 or
E-mail: admission@unileoben.ac.at

International Relations: +43 3842 402 7230 or
E-mail: international@unileoben.ac.at
Public Relations: +43 3842 402 7221 or
E-mail: info@unileoben.ac.at
Austrian Students Union: +43 3842 402 8101 or
E-mail: vorsitz@oeh.unileoben.ac.at

Campus life and additional services:

Exchange programmes and internationality

The Montanuniversität has a large number of agreements with partner universities in Europe and worldwide, which allows students to study abroad for one or two semesters. Studying abroad is not only a great opportunity to acquire a language, but above all promotes cultural understanding, flexibility, increases your competitiveness when entering the labour market, and is a wonderful personal enrichment. The International Relations Office supports and counsels all students who embark on their studies abroad.
Furthermore, Leoben boasts an active international community that organises events, conversation classes as well as trips to surrounding areas. Every other year, the Festival of Nations with dance, music and international delicacies is a highlight in Leoben's event programme.
http://www.unileoben.ac.at/ir,
erasmus@unileoben.ac.at (EU),
international@unileoben.ac.at (Non-EU)

Cafeteria [Mensa]

At the cafeteria, students may enjoy a great selection of meals at affordable prices or just have a chat with fellow students over a cup of coffee in the modern Archduke Johann Building. The daily meal plan can be downloaded at http://www.mensen.at.

University Library

The University Library consists of the Main Library, the Library for Geosciences, the RWZ Library (in the Raw Materials and Materials Science Centre), the Polymer Engineering Library and the collections at the different organizational units. The entire collection of the University Library comprises 265,000 books and 665 magazine subscriptions. With the launch of its search engine "BUGL" (German acronym for Library and University Complete Bibliography), the Montanuniversität has set new standards for electronic searches as the system accesses half a billion documents. The library staff supports students in matters of literature search and how to use the library's facilities. Using the library and loaning books is free of charge.
http://bibliothek.unileoben.ac.at/
univbibl@unileoben.ac.at

University Sports Institute Leoben (USI)

As a balance to academic life, the USI Leoben offers a wide range of sports courses and training for small membership fees. For first-year students, it is a great way to try out new sports and meet fellow students at the same time.
http://usi.unileoben.ac.at, usi@unileoben.ac.at

Student Societies

Besides classes and academic life at the university, Leoben features active and flourishing student societies. Students can get involved in study-related, cultural, political or sports clubs and thereby make new contacts and pursue their interests.

Centre for Languages, Education and Culture

Besides their technical training, students are encouraged to acquire foreign languages and to take advantage of the wide range of classes offered by the Centre for Languages, Education and Culture. The comprehensive offer is rounded off by cultural events and classes in the field of social competences.
http://zsbk.unileoben.ac.at, zsbk@unileoben.ac.at

Further information for international students and admission requirements:

admission@unileoben.ac.at
http://www.unileoben.ac.at/ir

MONTAN UNIVERSITÄT

WELCOME TO LEOBEN

Besides campus life, the city of Leoben features a vibrant bar scene as well as a surprising mix of wellness, shopping and culture.

As the second biggest city in the province of Stryia, Leoben is a highly interesting place for students and researchers alike. The combination of university life, research and close cooperations with international industry provides great prospects for Leoben's future, both as an attractive city for students as well as for research facilities. Outside the classroom, students benefit from the high quality of life and the city's broad range of sports and leisure activities. With its unique study programmes, the Montanuniversität holds a special position which is also reflected in the characteristic student life. Mining traditions and customs are held in high regard and contribute to Leoben's rich and active student life.

Events and nightlife

Besides campus life, Leoben also features festive activities and events for students such as the LE-Music-Night, when Leoben's clubs and bars are turned into small event stages, or major concerts at Leoben's main square. A highlight in Leoben's event calendar is the Gösser fair [Gösser Kirtag]. Thousands of visitors from near and far come to see the longest "fair strip" in Austria, where one vending booth is lined up after the other, and enjoy a glass of Gösser, "Austria's finest beer", in the Gösser beer tent.

Entertainment and culinary delights

In Leoben, you will often hear about "Leoben's refined water". This statement refers to the Gösser beer which is brewed in Göss, one of the oldest districts in Leoben. Beer connoisseurs and history enthusiasts can learn more about the beer's origin, history and brewing in the brewing museum. Visitors will quickly learn what makes Leoben's beer so special: the quality and brewing expertise at its highest level.

Water, fun and relaxation

The water-experience-world "Asia Spa" combines fun and relaxation in a unique way. Visitors enjoy the synthesis of sports, fun and fitness on the one hand, and complete relaxation and wellness on the other. The area comprises 45,000 m², and is only a few minutes away from the city centre (walking distance).

Shopping and culture

Shopping has reached a new dimension with the "LeobenCityShopping" (LCS). Right in the city centre and built within the historic walls of a former Dominican monastery, shopaholics will find a wide range of stores as well as an assortment of cafés and restaurants on an area of 200,000 m².
Under the slogan "7 rails into the past", 2,000 years of city, regional and mining history are reviewed in the city's "MuseumsCenter". The art gallery [Kunsthalle] is located in the same spacious building, where special annual cultural and historical exhibitions have attracted thousands of visitors for more than a decade.

250 euro for principal residence

In order to facilitate the start in a new environment, the city council of Leoben has decided that students of the Montanuniversität Leoben who establish their principle residence in Leoben for the first time receive support by the city of Leoben in the form of LE-vouchers worth 250 euro. Prerequisite is the registration for principle residence in Leoben. Each following year, the city of Leoben supports its students with LE-vouchers worth 100 euro, provided that the students can prove their principle residence in Leoben as of November 1st.

Concerts: Leoben's main square has been a venue for a number of (music) events.

With the inner-city shopping centre LCS, Leoben has established itself as the shopping magnet for the region of Upper Styria.

Traditions in Leoben: Students are celebrating the end of the academic year .

Asia Spa: The wellness oasis is the ideal place to let an exhausting day at the university draw to a leisurely end.

HOUSING

The following student halls and accommodation facilities are available to students in Leoben. It is recommended that applications are made in due time.

Student Halls "Akademikerhilfe"
- Haus St. Alfons, Gösserstraße 15, 8700 Leoben
- Sauraugasse 2, 8700 Leoben
- Schillerstraße 27, 8700 Leoben
- Schillerstraße 29, 8700 Leoben

E-mail: studentservice@akademikerhilfe.at
Tel.: +43 1 401 76-99
http://www.akademikerhilfe.at

Student Halls "Schlägel und Eisen"
Salzlände 16, 8700 Leoben
E-mail: office@studentenheim.info
Tel.: +43 3842 43129
http://www.studentenheim.info

Student hall "Berg- und Hüttenschule Leoben"
Max-Tendler-Straße 3, 8700 Leoben
Tel.: +43 3842 44888
http://www.htl-leoben.at

Student hall of the Austrian Student Union
Kerpelystraße 129, 8700 Leoben
E-mail: oeh-heim@unileoben.ac.at
Tel.:+43 660 5610759 (Management)
http://heim.oeh-leoben.at

Student hall "Collegium Josefinum"
Erzherzog-Johann-Straße 4, 8700 Leoben
Tel.: +43 676 87426934
E-mail: collegium@josefinum.com
http://www.josefinum.com/wb

Student hall "WIST"
Roseggerstraße 10, 8700 Leoben
E-mail: verwaltung@wist.vc-graz.ac.at
Tel.: +43 316 836666-0
http://www.wist.vc-graz.ac.at

Student halls operated by student societies:

Student hall "Studentisches Sozialwerk"
Waasenstraße 13, 8700 Leoben
Tel.: +43 664 3789251
http://vereine.unileoben.ac.at/studsozw/

Student hall "Weisses Kreuz"
Zellergasse 3, 8700 Leoben
E-mail: weisseskreuz@unileoben.ac.at
Tel.: +43 3842 42886
http://vereine.unileoben.ac.at/weisseskreuz/

Student hall "Corps Montania"
Jahnstraße 7, 8700 Leoben
E-mail: nikolaus-christopher.nadrchal@stud.unileoben.ac.at
Tel.: +43 3842 43665
http://www.corps-montania.at

Student hall "Steirisches Erz"
Am Glacis 15, 8700 Leoben
Tel.: +43 699 10694322
http://www.corpserz.com

Student hall "Montanistenhilfe Schacht"
Max-Tendler-Straße 15, 8700 Leoben
E-mail: wohnheim@corps-schacht.at
Tel.: +43 650 3736599
http://corps-schacht.at

Student hall "Steirisches Leder"
Salzlände 19, 8700 Leoben
E-mail: steirisches.leder@unileoben.ac.at
Tel.: +43 3842437640
http://vereine.unileoben.ac.at/stleder/

Provided by students for students – the online accommodation service by ÖH Leoben:

http://wohnen.oeh-leoben.at
wohnung@oeh.unileoben.ac.at

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LEOBEN & UNIVERSITY CAMPUS

Main Building

Archduke Johann Building

The Montanuniversität is located very centrally in Leoben, in the heart of the Province of Styria. The city can be reached quickly and easily by train and by car.

Arriving by car:

From Graz:
On the A9 in the direction of Salzburg/Linz – S 35 in the direction of Bruck/Mur – S 6 in the direction of Klagenfurt/Leoben – Exit Leoben East

From Carinthia:
S 6 in the direction of Vienna – Exit Leoben West

From Salzburg, Linz:
A 9 in the direction of Graz - St. Michael interchange – S 6 in the direction of Vienna – Exit Leoben West

From Vienna:
S 6 via Semmering – Exit Leoben East

Arriving by train:
Railway lines Vienna – Klagenfurt – Villach or Salzburg – Graz; Leoben Main Station, then less than 5 minutes on foot to the university.

The university campus is in the centre of Leoben:

N

third-party property

A Main Building
Franz-Josef-Strasse 18
1 Main Building
2 Rittinger Building
3 Chemistry Building
4 Environmental Protection Building
5 Metallurgy Building

6 Workshops
7 Archduke Johann Building (lecture building)

B Rabcewicz Building
Parkstrasse 27

C Academy of Sciences
Jahnstrassse 12

D Peter Tunner Building
Peter-Tunner-Strasse 5

E TTZ
Peter-Tunner-Strasse 27

F RWZ
Erzherzog-Johann-Strasse 3

G IZW
Max-Tendler-Strasse

H Polymer Engineering
Otto-Glöckel-Strasse 2

I Academy Montanuniversitaet
Peter-Tunner-Strasse 15

J IZR
Roseggerstrasse 11a

M ZAT
Peter-Tunner-Strasse 19

TTZ: Technology Transfer Centre
RWZ: Raw Materials and Materials Centre
IZW: Materials Innovation Centre
IZR: Raw Materials Innovation Centre
ZAT: Centre of Applied Technology

A Hauptgebäude
Franz-Josef-Straße 18
1 Hauptgebäude
2 Rittingergebäude
3 Chemiegebäude
4 Umweltschutzgebäude
5 Metallurgiegebäude

6 Werkhallen
7 Erzherzog-Johann-Trakt (Hörsaalgebäude)

B Rabcewiczgebäude
Parkstraße 27

C Akademie der Wissenschaften
Jahnstraße 12

D Peter-Tunner-Gebäude
Peter-Tunner-Straße 5

E TTZ
Peter-Tunner-Straße 27

F RWZ
Erzherzog-Johann-Straße 3

G IZW
Max-Tendler-Straße

H Kunststofftechnik
Otto-Glöckel-Straße 2

I Akademie Montanuniversität
Peter-Tunner-Straße 15

J IZR
Roseggerstraße 11a

M ZAT
Peter-Tunner-Straße 19

TTZ: Technologie Transfer Zentrum
RWZ: Roh- und Werkstoffzentrum
IZW: Impulszentrum für Werkstoffe
IZR: Impulszentrum für Rohstoffe
ZAT: Zentrum für Angewandte Technologie

STRUCTURE OF STUDIES

10th semester

9th semester

8th semester

7th semester

6th semester

5th semester

4th semester

3rd semester

2nd semester

1st semester

GRADUATE STUDIES

Available study programmes

- Applied Geosciences
- Mining and Tunnelling
- Raw Materials Engineering
- Industrial Management and Business Administration
- International Study Program in Petroleum Engineering
- Industrial Energy Technology
- Materials Science
- Polymer Engineering and Science
- Metallurgy
- Mechanical Engineering
- Industrial Environmental Protection
- Industrial Logistics

Duration: 3 or 4 semesters / Degree: Master of Science [Diplomingenieur]
Option: PhD programme, 6 semesters

UNDERGRADUATE STUDIES

Available study programmes

- Applied Geosciences
- Mineral Resources Engineering
- Petroleum Engineering
- Industrial Energy Technology
- Materials Science
- Polymer Engineering and Science
- Metallurgy
- Mechanical Engineering
- Industrial Logistics
- Industrial Environmental Protection

Duration: 7 semesters
Degree: Bachelor of Science (BSc)

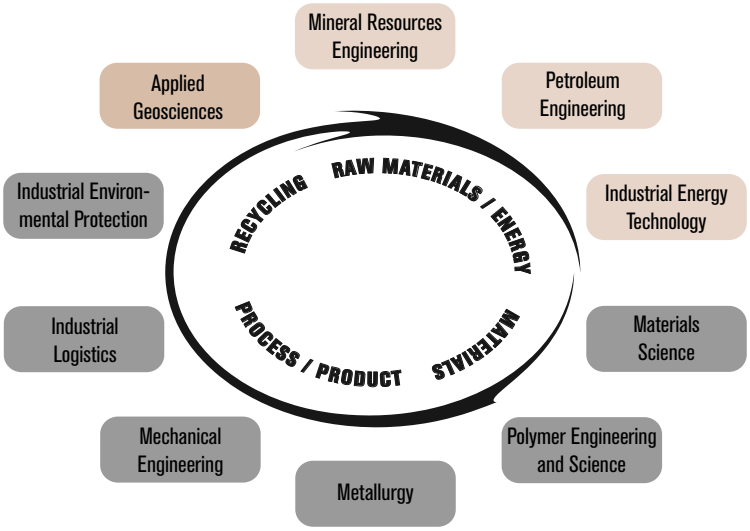
Fundamentals and specialist training, enabling the student to enter professional life

6-month internship

FIRST YEAR OF COMMON STUDIES

Within the bachelor's degree, the first year of studies is the same for all students. Foundational courses: computer application and programming, mathematics, chemistry, physics, statistics, mechanics, Introduction to Montanistic Sciences.

MONTAN UNIVERSITÄT



APPLIED GEOSCIENCES

The study of Applied Geosciences joins science and engineering in a unique way, and is involved in particular with the exploration of raw materials and assessing their properties, groundwater exploration and protection, securing contaminated sites, as well as assessing geological risks and the geotechnical project planning for construction projects.

Understanding the earth, preserving it, and benefiting from it.

Undergraduate studies

The training is a cross between traditional (mining) engineering science and traditional geological studies. It prepares students in the fields referred to above for the national and international labour market, providing specialist skills in the relevant scientific and technical disciplines, an understanding of geoprocesses and geomaterials with regard to their significance in technical problem situations, and other areas of knowledge and skills of importance in the practice of the profession. This wide range of activities calls for an interdisciplinary training in natural sciences and technology.

Graduate studies

The master's programme in Applied Geosciences provides an intensification and supplementation of the specialist knowledge acquired from the bachelor's programme. The modular structure of this study programme allows for specialisations in the following focus areas:

- Applied Geophysics and Petroleum Geology: The combined implementation of geological and geophysical techniques in the search for and exploitation of mineral oil and natural gas deposits.
- Raw Materials and Environmental Geology: Exploration of raw material deposits, the assessment and refinement of raw materials, the evaluation of geological risks and geological environmental risks incurred by human activity, and the clearance of contaminated sites.
- Petroleum Geophysics: The use of special geophysical measuring processes on and offshore and from the air in order to locate and explore mineral oil and natural gas deposits.

The instruction on the master's programme is in part conducted in English.

Qualification profile/fields of employment

Applied Geosciences today are an important interdisciplinary subject in the general field of environmental protection (spatial acquisition and interpretation of geological/geochemical/geophysical data as a basis for spatial planning, the analysis of geological risks, and environmental impact assessment). Graduates of Applied Geosciences find professional opportunities on a national and international level, in companies operating in the fields of mining, raw materials, exploration, mineral oil and natural gas, and their service environments, in geophysics service companies, in the construction material and utility material industry, in engineering agencies, in companies dealing with waste tips, recycling, and the clearance of old tips, the construction sector, in provincial geological services and regional corporations, at universities and research institutions, and as independent civil engineers and consultants.

Dipl.-Ing. Stefan Sageder, TOTAL, France:

"Only three days after my final exam, I began my first day of work for TOTAL – 1,500 km away from home in the southwest of France. Since then, I've shared an office with colleagues from four continents: Africa, Asia, America and Europe. From day one, I was given great responsibilities as a geophysicist at one of the biggest oil companies in the world. Today, my focus is on 'time-lapse' seismic (4-D seismic). The basis of my success is my studies of Applied Geosciences with a focus on Petroleum Geophysics at the Montanuniversität Leoben."

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr. mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's,
6 semesters for the doctoral programme

Focus:
Principles of geosciences, raw material geology, economic geology, mineral oil geology, applied geophysics

Programme Director:
Univ.-Prof. Mag. Dr. Reinhard Sachsenhofer
ursula.schmid@unileoben.ac.at
Tel.: +43 3842 402 6301

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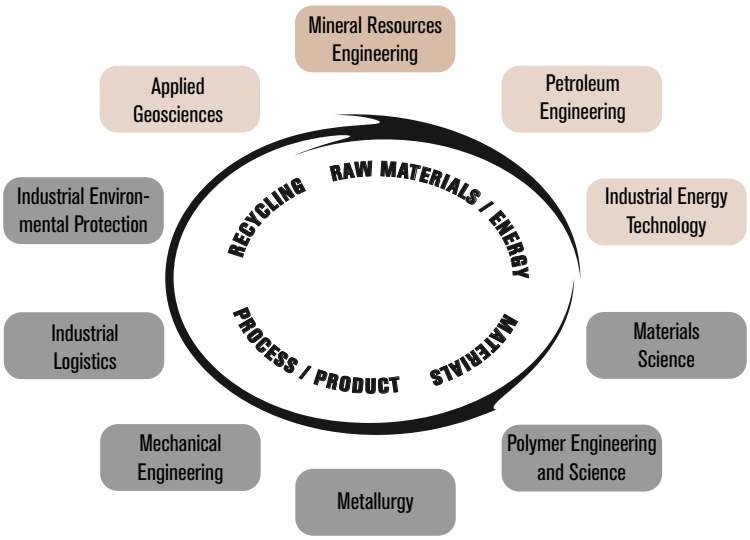
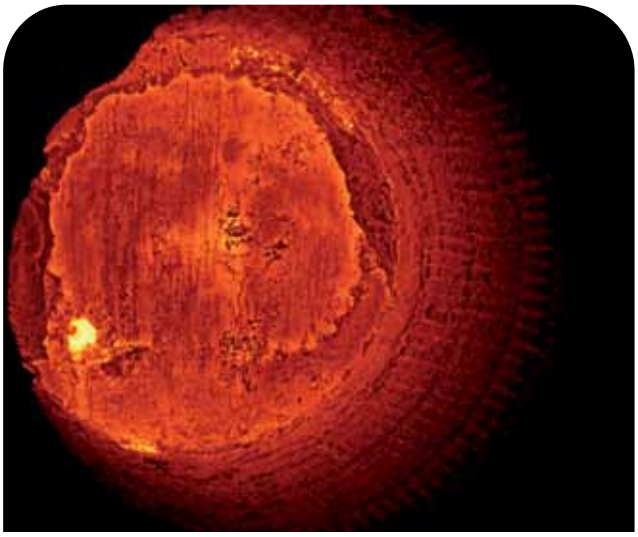




MINERAL RESOURCES ENGINEERING

The study programme is concerned with the extraction, processing and subsequent treatment of mineral raw materials and tunnelling.

Undergraduate studies
During the first four semesters, the bachelor's programme focuses on providing the fundamentals of engineering and science. The subsequent three semesters include a broad range of technical studies covering the entire spectrum from the extraction of mineral raw materials, mineral processing, the production of building materials and ceramic products up to tunnel construction.

Graduate studies
Building on the bachelor's programme in Mineral Resources Engineering, students may pursue further studies and choose one of two available master's programmes (three semesters): Mining and Tunnelling or Raw Materials Engineering. The first two semesters comprise subject-specific classes. The third semester is for the preparation of a master's thesis, mostly in cooperation with industry.

■ Mining and Tunnelling
This graduate programme offers the following majors:
Mining involves the surface and subsurface extraction of mineral resources, application of different road heading machines, mineral economics, recultivation and the management of raw material projects.
Geotechnics and Tunnelling is concerned with geotechnical exploration, planning and the installation of underground structures, including the related fields of surveying, geotechnical monitoring, geoinformation, construction contract matters, and construction management.
Raw Materials and Energy Systems is concerned with the extraction of energy resources, the usage of energy, the production and supply. This major is offered in the form of a joint diploma with the École Nationale Supérieure des Mines in Paris.

■ Raw Materials Engineering
This graduate programme offers the following majors:
Mineral Processing involves the processing of mineral and secondary resources to high-quality products by means of physical and chemical processes. These include comminution, sizing, separation processing, dewatering, dedusting, agglomeration and leaching.
Building Materials and Ceramics pursues academic training in the field of non-metallic inorganic materials (construction materials, mineral binders, refractories, ceramics, and glass).
Mineral Processing and Energy Systems focuses on the processing of energy resources, the usage of energy, the production and supply. This major is offered in the form of a joint diploma with the École Nationale Supérieure des Mines in Paris.

Qualification profile/fields of employment
Executive engineers in the raw materials industry, construction companies, refractory and ceramics industry, plant construction, tunnel construction and in research.

Dipl.-Ing. Nina Pressler, Imerys Talc Europe, Planning & Resources Department, France:

"In addition to my studies, I was working at home and abroad in order to enhance my theoretical knowledge with hands-on experience. In my current job, I travel a lot and support our affiliates in every step, from identifying a solution to installing the plant and its start of operation. The profound education covering all aspects from mining to processing provides me with the necessary skills to master professional challenges."

Mineral resources are an essential foundation for our modern industrial society and prosperity.

INFOBOX

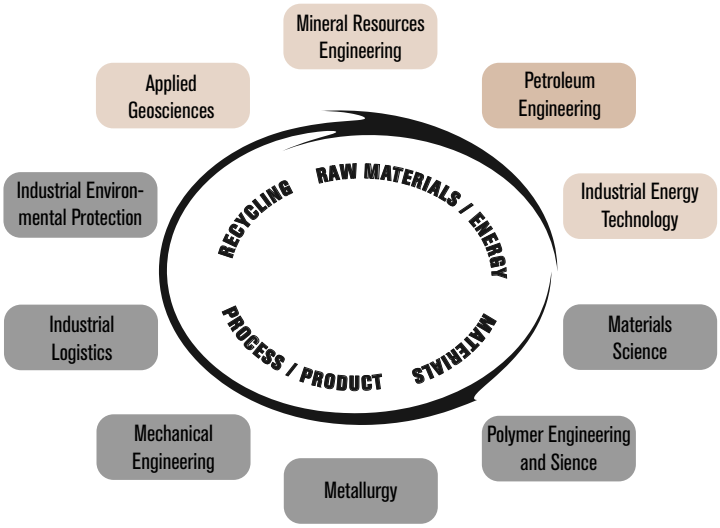
Available degrees:
BSc, Dipl.-Ing. (MSc), Dr. mont. (PhD)

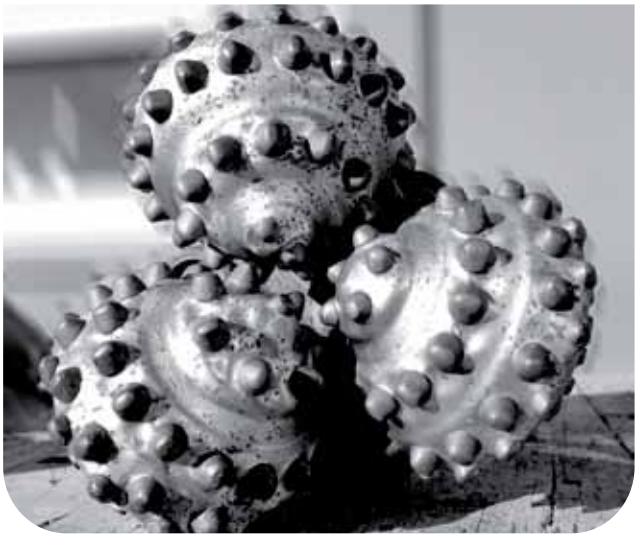
Duration:
7 semesters for the bachelor's programme,
3 semester for the master's,
6 semester for the doctoral programme

Focus:
Extraction of raw materials, reservoir and tunnel construction, surface and subsurface surveying, mineral processing, development and production of building materials, ceramics and refractories

Programme Director:
Univ.-Prof. Dipl.-Ing. Dr. Peter Moser
birgit.knoll@unileoben.ac.at
Tel.: +43 3842 402 6604

MONTAN UNIVERSITÄT





PETROLEUM ENGINEERING

Whether on a drilling rig or as a scientist in research and application in computer-oriented simulation - this extensive and versatile programme opens up a wide range of opportunities for graduates in the field of petroleum engineering.

Undergraduate studies

The bachelor's programme Petroleum Engineering provides a set of knowledge and technical expertise at a level expected of international bachelor graduates in this field. Training is given in all focus areas such as reservoir engineering, drilling engineering, production engineering as well as geosciences and business administration, and provides graduates with the skills to work in the petroleum industry at home and abroad.

Graduate studies

- **International Study Programme in Petroleum Engineering**

The master's programme aims at broadening the expertise and further developing scientific skills in the field of petroleum engineering, equivalent to the standards of master's programmes at Anglo-American universities. Students can choose one of the following three focus areas:

Drilling Engineering: static and dynamic designs of wellbore constructions, the dynamics of drilling processes, planning, monitoring, and assessment of drilling projects

Petroleum Production Engineering: planning, layout, and maintenance of production systems and natural gas storage facilities, methods for extending the service lives of oil and gas fields, the utilization of geothermal energy

Reservoir Engineering: monitoring the quality of geological modelling of reservoirs, conduct of field studies

- **Industrial Management and Business Administration**

The master's programme aims at providing graduates with a holistic and scientific approach to problems and finding creative solutions. Well-established methods and theories in the fields of economics and business management are taught, with great emphasis on research. The programme is designed to promote skills and abilities that enable graduates to resolve practical economic tasks and challenges successfully.

Qualification profile/fields of employment

While pursuing their studies, students will already have the opportunity to gain an insight into their future professions in the course of their mandatory practical field work. Graduates are prepared for their employment on drilling rigs and production sites, and as planning engineers in drilling, reservoir and production engineering as well as in the field of pipeline and plant engineering. Due to their broad education, graduate will have leading positions at all levels. Leoben Petroleum Engineers work for petroleum companies, in energy management, in foundation engineering, and consulting firms, as well as in research and development.

Special feature

The Montanuniversität Leoben has become an internationally acclaimed training centre for petroleum engineers. With English as the language of instruction (5th semester onwards) and a variety of exchange programmes with other leading universities, Leoben's excellent reputation continues to be spread throughout the world.

Dipl.-Ing. Benedikt Bindl, Statoil ASA, Norway:

"The Montanuniversität Leoben offers a very personal study environment, and I received both the engineering expertise, as well as the necessary skills in business management for a successful career on a domestic and international level. Wherever you may work in the world, as a Leoben Petroleum Engineering, you're always a step ahead."

Oil and natural gas will continue to be the most significant resources and energy sources in the years to come.

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr.mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's,
6 semesters for the doctoral programme

Focus:
drilling technology, oil and gas production technology, reservoir engineering and characterization, business administration

Programme Director:
Univ.-Prof. Dipl.-Ing. Dr. Gerhard Thonhauser
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www.petroleumengineer.at

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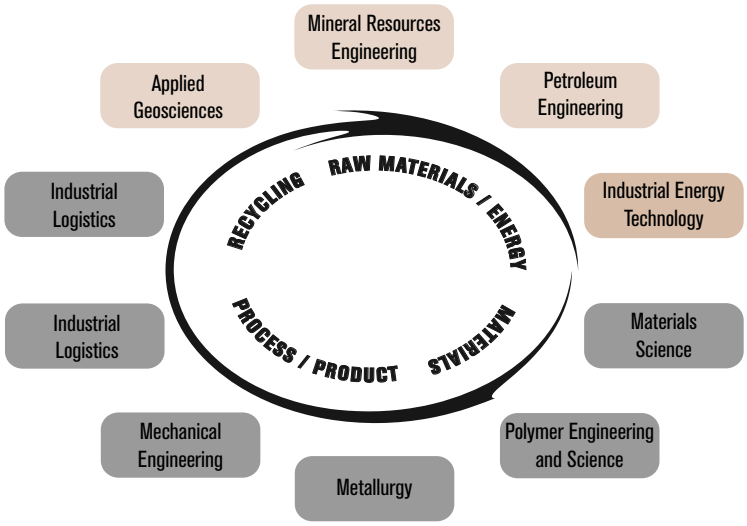

INDUSTRIAL ENERGY TECHNOLOGY

Considering that the worldwide demand for energy is continuously rising, it is of great importance to provide students with the necessary skills to identify and utilise energy saving potentials in the field of energy technology.

The interdisciplinary study programme Industrial Energy Technology is concerned with research areas such as innovative energy technologies, fuel technology, thermal process technology, electro technology, sustainability, economic and ecological assessment as well as energy management, the energy market and energy legislation. The main emphasis is on process engineering, the raw materials and production industry.

Undergraduate studies

Besides basic training in engineering and science, students acquire knowledge and skills in the fields of process technology, energy technology, waste air treatment, environmental analysis as well as business and economics. In semester 7, students are required to submit a bachelor's thesis.

Graduate studies

In addition to the compulsory subjects in the fields of energy supply, energy use and consumption, energy process technology, and energy management, the master's thesis and relevant practical experience in the industrial sector are essential components of the master's programme. The master's programme aims to provide

- fundamental skills and competences in energy technology as well as specialist knowledge in theory, methodology and industrial applications as well as economic thinking,
- scientific and practical intensification in the field of energy technology, with particular emphasis on the application and use of these skills,
- comprehensive problem solving skills in the areas mentioned in the field of sustainable energy technology,
- the skills to implement innovative, function and cost-optimised solutions for technical problems that are also environment-friendly,
- an overview and the combination of single disciplines by integrating a range of comprehensive interdisciplinary fields.

Qualification profile/fields of employment

There is a high demand for energy technology engineers with comprehensive skills and expertise worldwide. The master's programme generally prepares students to know and execute all technical activities and tasks in research, approach development, product development, production, planning, distribution, commissioning, service and maintenance as well as to operate facilities and plants as a specialist, in a leading position or even in the executive management. The fields of activity for energy engineers are

- general energy supply of industry, with special focus on sustainability and environmental compatibility
- development and supply of renewable and alternative energy resources
- energy conversion and industrial energy use with high efficiency
- development and utilisation of innovative energy technologies
- economic and ecological assessment of energy efficiency and supply optimisation
- energy management
- energy oriented, sustainable distribution and planning operations.

Dip.-Ing. Dipl.-Ing, Manuel Artz, VTU Energy GmbH, Vienna:

"The Industrial Energy Technology study programme is unique beyond the borders of Europe: Students receive profound training in engineering, paired with the ability to see and understand the bigger picture. The holistic training enables you to apply your skills flexibly in any company that is concerned with energy production, the increase of energy efficiency, or consulting, as these fields are gaining more importance."

A large proportion of the primary energy consumption – in Europe approx. 30 percent– accounts for industry.

Thus, the environmentally-friendly and cost-effective supply, transport and use of energy are key requirements for today's industries.

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr.mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
4 semesters for the master's,
6 semesters for the doctoral programme

Focus:
Sustainability, energy efficiency

Programme Director:
Univ.-Prof. Dipl.-Ing. Dr. Harald Raupenstrauch
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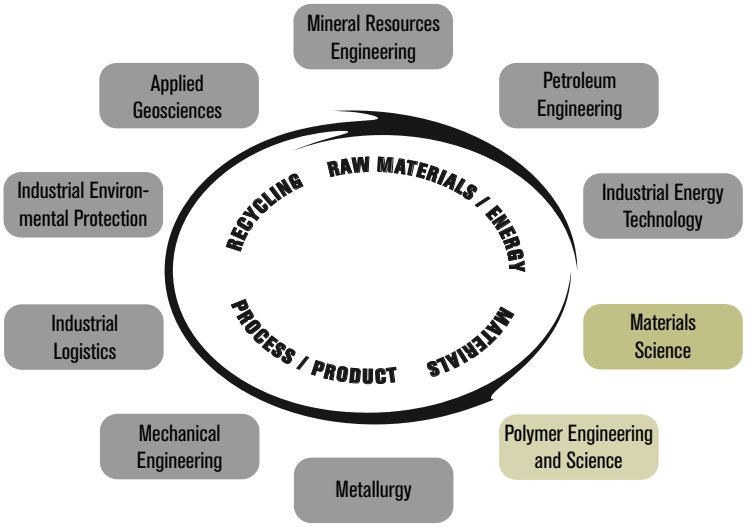

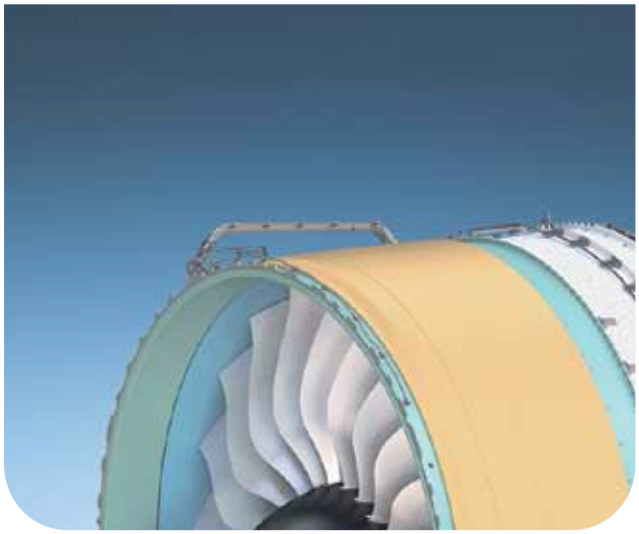

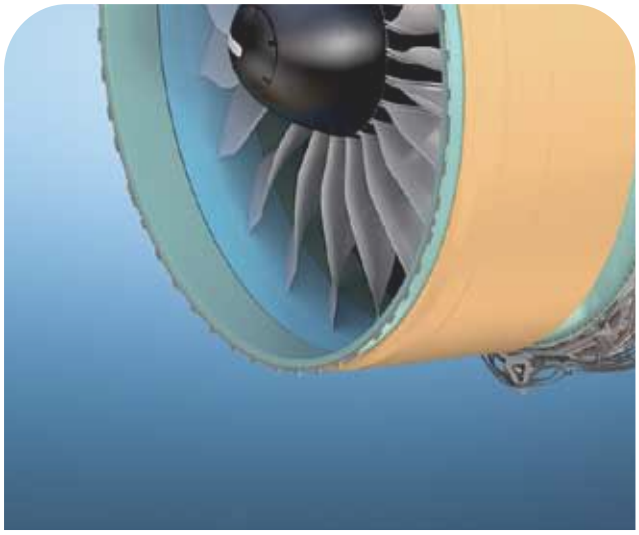

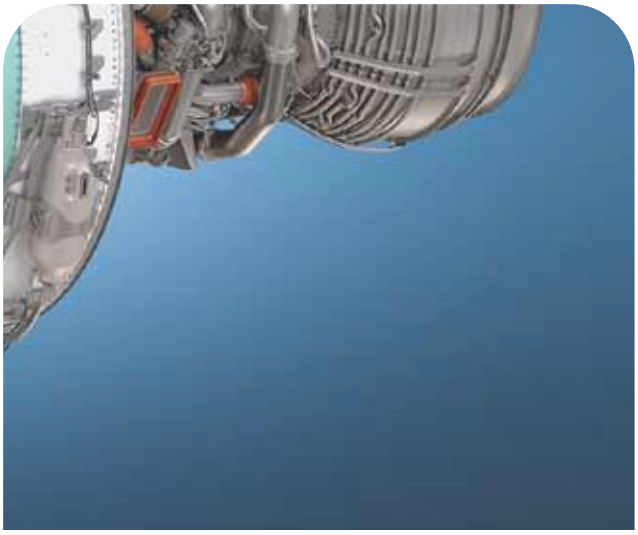

MATERIALS SCIENCE

Materials with tailored properties play a key role in times of diminishing resources, rising ecological demands on production, recycling and energy efficiency of products.

Materials science is the study of the correlation between the micro- and nanoscopic structure and the macroscopic properties of structural and functional materials.

Undergraduate studies

The bachelor's programme takes seven semesters. During the first four semesters of the bachelor's programme, the focus lies on the fundamentals of engineering and on natural sciences. Additionally, the basics of materials science of metallic and ceramic materials are covered. In semesters five through seven, the emphasis will be on properties and the processing of materials such as metals and their alloys, ceramic materials, polymeric materials, composites, as well as semiconductor materials. Students acquire an understanding of the solid-state-physical phenomena of these material classes, as well as materials testing and cutting-edge methods for examination and analysis. At the end of semester seven, the bachelor programme is finalized with a bachelor's thesis on a materials science related topic.

Graduate studies

Within the master's programme, two semesters are reserved for classes, and one semester is set aside for the master's thesis. The programme is designed to enhance the students' skills acquired during the bachelor's studies and to specialize in certain core areas. The following elective modules are offered:

- metallic materials
- materials physics
- ceramic materials
- materials for electronics
- physics of functional materials

Additionally, students can choose to focus on one of the following areas:

- biomaterials,
- modeling and simulation,
- polymeric materials,
- project and quality management.

In the masters' thesis, a research question in the field of materials science is addressed. The thesis can be completed at a university department or in cooperation with a company relevant to the field of research.

Qualification profile/fields of employment

The job prospects for graduates of materials sciences are exceptionally good. Whether at home or abroad, the demand of materials science engineers exceeds the actual supply. Fields of employment for materials scientists are immensely varied and widespread. Besides basic research, materials scientists are concerned with the development of materials and material combinations with enhanced qualities as well as with the testing of materials. Moreover, materials scientists are essential in the fields of applied technology and materials consultation, and they are also involved with materials failure analysis. Consequently, the entire range of industries which manufactures, processes, and uses materials are open to materials scientists such as the steel and light metal industry, the automotive industry, the aerospace and aviation sector, semiconductors and microelectronics, communications technology, environmental protection, medical technology, and nano-technology.

Dipl.-Ing. Dr. Ronald Schnitzer, Böhler Welding, Kapfenberg: "The study of Materials Science enables one to understand physical correlations and phenomena. The profound basic training I received during the course of my studies has been very helpful and beneficial for my professional career. When choosing this programme, you can be sure that excellent job prospects lie ahead of you."

Materials have had and will continue to have a decisive impact on the social and economic development of mankind.

INFOBOX

Available degrees:
BSc, Dipl.-Ing (MSc)., Dr.mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's + internship,
6 semesters for the doctoral programme

Focus:
Metals science and materials testing, materials physics, ceramic materials, nano and biomaterials, functional materials, materials for electronics

Programme Director:
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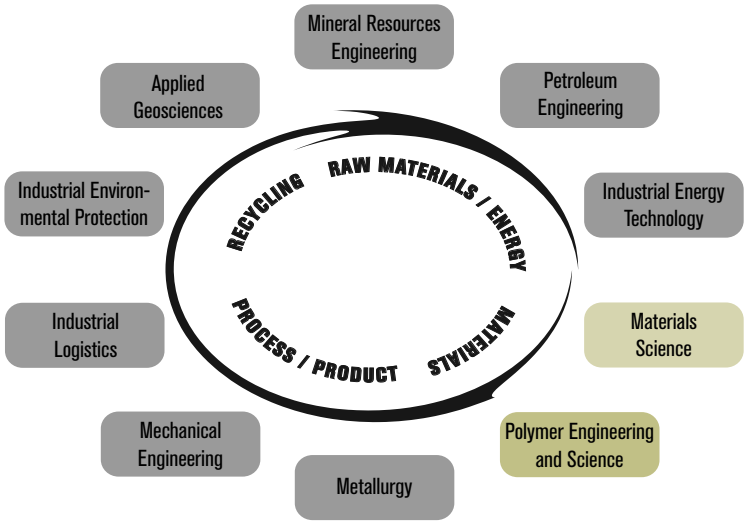

POLYMER ENGINEERING AND SCIENCE

Polymer based materials are of immense technical and economic importance, and show excellent growth potential. Scientifically trained engineers who are capable of enhancing polymers, processing the materials, and finally apply them are very much in demand all over the world.

Graduates of the study programme Polymer Engineering and Science are trained to master all the applicable areas of development, application, processing, and testing in polymer engineering, as well as the field of composite materials, and how to put them into effect successfully in their profession later on. In the course of the study programme, the most important specialist areas of polymer science and engineering along the value-added chain are taught. As a result, the programme features a holistic character almost unique in Europe and even on a worldwide scale.

Undergraduate studies

The seven-semester bachelor's programme consists of four semesters of basic training, with supplementary classes in organic chemistry, fluid dynamics, machine elements, and materials science.
In the subsequent three semesters, students are familiarised with the chemistry of polymers, the physical properties of polymers and elastomers, and testing of polymeric materials. Considerable attention is paid to the processing and shaping of polymers and composites, including plastics processing machines and tools, drive technology, instrumentation and control. As a fourth core discipline, the design and production of components of polymers and polymer based composites is taught, such as fibre reinforced polymers and polymer-metal composites. A supplementary course covers the economic and business management principles of polymer engineering. Two independent written theses are to be submitted as part of the bachelor's programme.

Graduate studies

The master's programme (three semesters) further broadens the students' knowledge and provides special scientific advanced training for the profession. In-depth study is provided in one of the following majors:

- polymeric materials – development and characterisation
- production technology and component design
- polymer lightweight construction

as well as a master's thesis.

A compulsory internship of 90 work days (undergraduate studies) and 30 work days (graduate studies) at relevant companies complements the academic training.

Qualification profile/fields of employment

The professional prospects for the graduates in Polymer Engineering are excellent. The production of polymeric materials is growing more significantly than any other material every year. Polymer engineers are in particular demand in large and medium-sized companies in the plastics and rubber processing industry (automotive industry, electrical engineering/electronics, medical technology, sports articles, aerospace industry, etc.). Excellent career opportunities are also offered by polymer producing companies and the producers of machinery and systems for polymer processing.

Dipl.-Ing. Elmar Ratschmann, Head R&D, KE KELIT Kunststoffwerk GesmbH, Linz: "While pursuing my studies in Leoben, I already had the opportunity to meet potential employers during excursions and while attending company lectures. These industry contacts provided me a quick and successful start into my professional life. Graduates of Polymer Engineering are in great demand on the labour market, and they usually start in middle management and quickly make their way up the career ladder. With its combination of top-notch academics and living mining traditions, my studies in Leoben remain a memorable time that I like to look back on."

INFOBOX

Available degrees
BSc, Dipl.-Ing. (MSc), Dr.mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's,
6 semesters for the doctoral programme

Focus:
Chemistry of polymeric materials, materials science and testing of polymers, polymer and composite processing, injection moulding of polymers, design and production in polymer and composite materials

Programme Director:
Univ.-Prof. Mag. Dr. Wolfgang Kern
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Our modern world of technology is inconceivable without polymers.

This applies to all areas of technology, but in particular for electrical engineering and electronics, medical technology, sports articles, packing technology, and all areas of human mobility.

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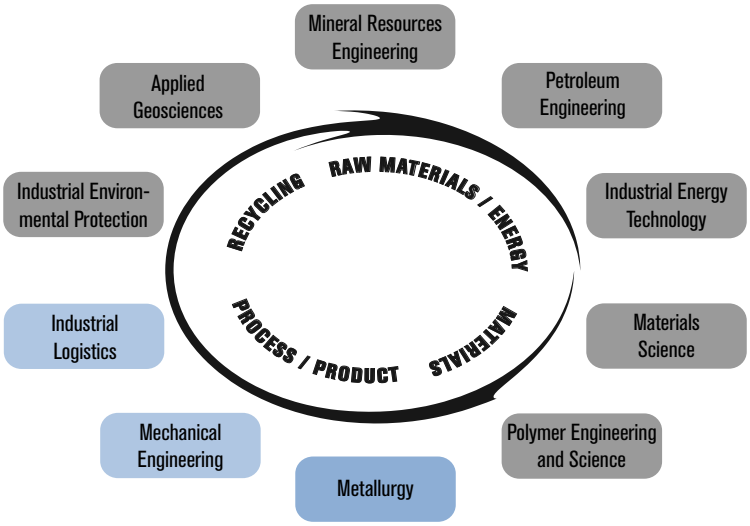

METALLURGY

Metallurgy is the science of the development, manufacture, and processing of metallic materials from the technical processing, economical, and ecological points of view. This also includes the further processing into components and process integrated recycling.

Undergraduate studies

The first two semesters are identical to the first year of studies for all bachelor's programmes. The second year of study provides the basic training and skills for the bachelor's programme; the specialisation in subject-related fields starts in semester five.

Graduate studies

The following optional subjects are on offer:

- Steel Technology: In this option, the basic metallurgical principles of steel technology are considered in more detail, and special issues of metallurgical process technology are dealt with, as well as the specific manufacturing approaches of high-tech steel products in competition with other materials.
- Non-ferrous Metallurgy: The extraction of non-ferrous metals such as aluminum, copper, zinc, special metals, rare earth elements etc. are continuously gaining importance in today's society. A particular point of focus here is represented by the overall metallurgical consideration of primary metallurgy and the recycling of scrap and residues, as well as sustainability.
- Casting Technology: This option provides expertise in casting technology, referring to the immediate production of metal components and intermediates from the melt, from the solidification to various casting processes.
- Forming Technology/Component Manufacture: The basic principles are taught which allow for the process-accompanying simulation of sheet and massive working processes under consideration of the microstructure in the course of metal forming and the production of new and improved products.
- Industrial Management: This option is designed to provide methodological competence in industrial management techniques and general management skills as well as interpersonal skills on a management level.
- Thermal Processing: Students are instructed in the process-related framework conditions of metallurgy, such as the combustion, high temperature, and heat technologies, as well as energy and environmental engineering.

Qualification profile/fields of employment

Activities of particular interest:

- in the management of companies involved with metal extraction and processing
- in consultancy with regard to effective use of materials and manufacturing techniques
- in technical sales
- in research and development with regard to new processes, materials, and products
- in the planning, project management, and the handling of construction of metallurgical production plants
- in the optimisation of processes in respect of energy, environmental compatibility, and business management.

Metallic materials are found in all areas of everyday life and are closely linked to the development of civilization.

Dipl.-Ing. Dr.mont. Katharina Faerber, Pankl Racing, Kapfenberg:

"Besides the profound theoretical know-how, I also gained great insight into industrial practice. Internationality was also of great significance, and I had the opportunity to do research at one of our partner universities abroad. Even before graduating, I had already received a number of job offers, and eventually decided to take on a job at Pankl Racing, a global player in motor sports. Not only did I enjoy my studies at the Montanuniversität, but they prepared me well for the many day-to-day challenges in the professional world."

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr. mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's,
6 semesters for the doctoral programme

Focus:
Primary and secondary extraction of metals, sustained process development, down stream processing, and materials technology of metals

Programme director:
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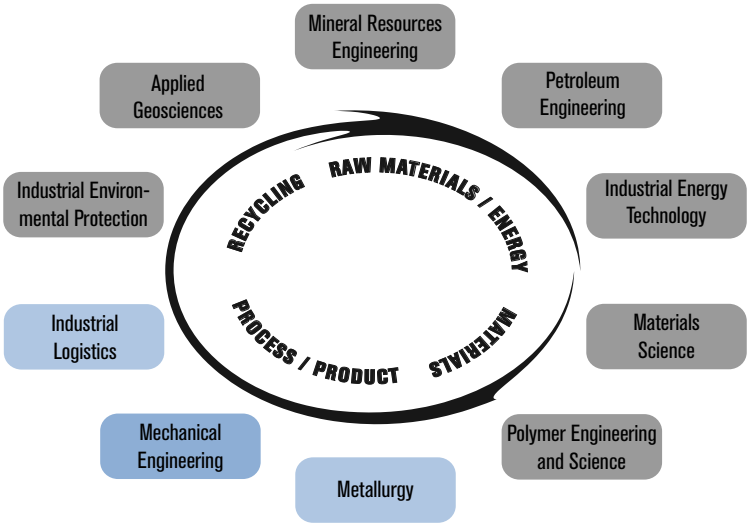

MECHANICAL ENGINEERING

The field of activity for mechanical engineers is particularly diverse. It includes research and development, design, automation, production, sales and marketing, and the maintenance of machinery and systems. A specialty of Leoben's mechanical engineers is their expertise in materials science.

Creativity and innovation are the driving forces of mechanical engineering. In order to meet the enormous innovative power of our modern industrialized society, basic training, imagination and the ability to quickly respond to new tasks and challenges are particularly important for mechanical engineers. From the design and construction on to the right choice of materials – as the highest decision-makers, mechanical engineers determine the development and implementation of an idea to the end product.

Undergraduate studies

In the first four semesters, the emphasis is on scientific and engineering subjects. On this basis, students receive a thorough training in the most important disciplines of mechanical engineering from semesters 5 through 7. The sound knowledge of engineering forms a solid foundation for a more in-depth training within the master's programme. The bachelor's programme concludes with a (preferably) interdisciplinary thesis in order to enhance creativity, team spirit, and networked thinking.

Graduate studies

The master's programme gives an overall perspective from the conception of an idea to the final product. Students gain scientific as well as application-oriented skills in the fields of development, construction, industrial production technology, automation, mechatronics and heavy machinery, including the concept of sustainability and further multidisciplinary and supplementary subjects. The following majors are on offer:

- advanced mechanical engineering
- engineering and design
- production engineering
- mechatronics
- heavy machinery

Specialised courses address subjects such as product and process development and materials engineering. In compliance with a modern and comprehensive education in mechanical engineering, fields such as modelling and simulation as well as lightweight construction are covered. Due to this wide selection of options, a wide range of career paths and excellent job prospects are open to graduates.

Qualification profile/fields of employment

Mechanical engineers work as product engineers, process developers, planning or design engineers, automation specialists, heavy machinery engineers, quality managers or plant managers in the technical management, and many other fields of activity. The scientific specialisation, in particular within the course of the master's thesis, provides the optimum foundation for subsequent doctoral studies and research activities.

Leoben graduates find employment in all fields of industry and at universities at home and abroad.

Dipl.-Ing. Dr.mont. Christoph Haberer, Head Gear Manufacturing, Sandvik Mining and Construction:

"The Mechanical Engineering study programme offers an excellent academic training with a wide range of specialisations available. Not only my studies in Leoben, but also the university environment provided me with an excellent basis for a successful career in research and business on a national and international level."

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr.mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's + internship,
6 semesters for the doctoral programme

Focus:
Advanced mechanical engineering, engineering and design, production engineering, mechatronics, heavy machinery

Programme Director:
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automation@unileoben.ac.at
Tel.: +43 3842 402 5601

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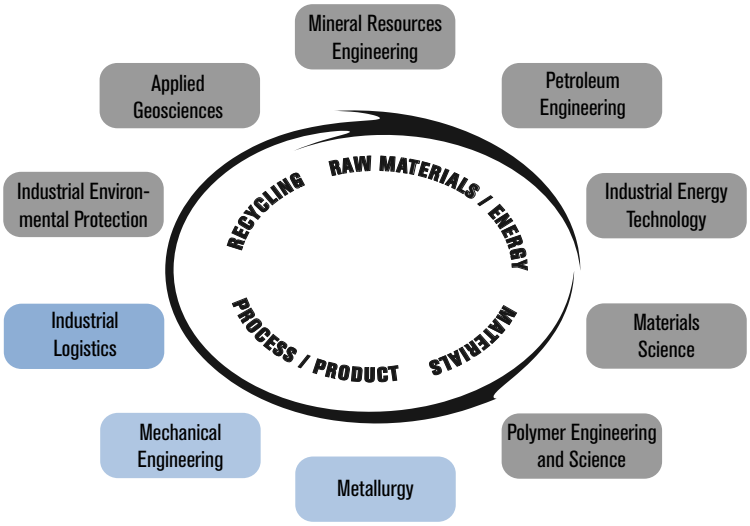

INDUSTRIAL LOGISTICS

Industrial logistics represents the link between the procurement markets (supplier), the production facilities (plants), and the sales markets (customers). The programme provides comprehensive specialist training for the logistics sector.

Due to constantly changing market conditions, logistics is of particular importance to the success of a company. Logistics represent the link between the procurement markets, the production facilities, and the downstream consumption locations.

Undergraduate studies

The bachelor's programme in Industrial Logistics aims to prepare students by providing the core skills expected of a logistics executive in the fields of technical, methodological, and social competence. Following the basic training, a three-semester intensification is provided in the fields of:

- logistics and logistics technology
- process management
- business administration and process management
- information technology

Graduate studies

Within the master's programme, students choose – on the basis of a joint compulsory subject range – two different fields from a range of focus areas:

- logistics management
- computational optimisation
- automation
- logistics systems engineering

Within the master's studies, a number of lectures and courses is held in English in order to enhance international exchange

Qualification profile/fields of employment

Top logisticians are some of the most widely sought-after specialists on both the national and international labour markets. Their expertise not only includes business management and technical skills, but also proficiency in the fields of communication and information technology. Essential preconditions are competence in project management and certain personality features, such as the ability to work in team. Today's logistics specialist must, more than ever, have knowledge of process management in order to secure the optimisation of the entire process. The powerful meshing of economics and technology, with a solid basic training in the natural sciences, enable the Leoben logistics graduates to meet the challenges of the market.

Industrial logistics specialists are to be found in particular in the fields of material management, supply chain planning and control, industrial purchasing, organization and process management, information technology, and disposal. Other areas of activity are companies which are involved in warehouse automation, transport and conveyor technology, and container management.

Relevant sectors include, for example, heavy industry, the raw materials industry, and the electronics industry, but also logistics service providers. Despite the expansion in training for logistics specialists over the past few years, the demand for qualified personnel in the sector is still exceeding supply.

Dipl.-Ing. Lukas Hauer, TGW Mechanics GmbH, Wels: "The Industrial Logistics study programme is unique in its content and focus in Austria. In my opinion, the unique features are the profound basic training in science and economics. Following the basics, all relevant fields of logistics along the value-added chain are taught in hands-on classes. The analytical skills gained within the course of my studies enable me to find holistic solutions for logistic issues today."

Logistics integrates functions to form process chains, and companies into value creation networks.

Future challenges lie in the increasing complexity and rapidity of international business activity.

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr. mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's,
6 semesters for the doctoral programme

Focus:
Logistics engineering, logistics management, production planning and control, process and complexity management, optimisation of logistics systems

Programme Director:
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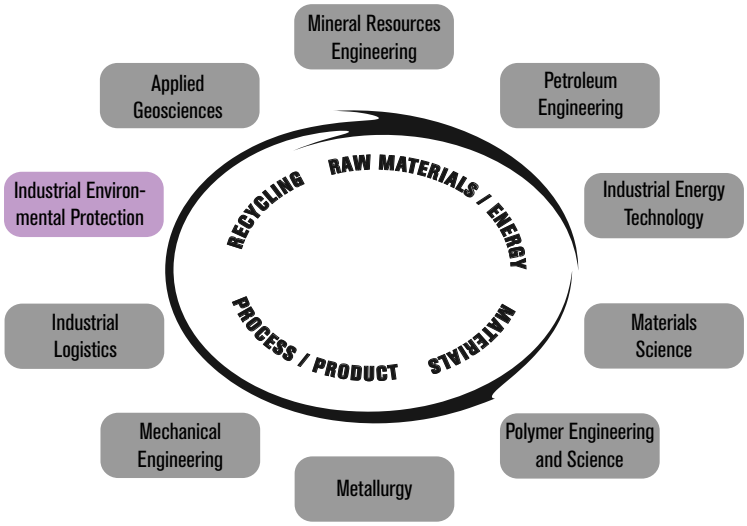

INDUSTRIAL ENVIRONMENTAL PROTECTION

The study programme offers varied and comprehensive engineering training as a basis for a vast scope of employment and activity. Environmental engineers are responsible for providing environmentally-compatible technology as well as serving as competent consultants in all environmental issues.

The Montanuniversität provides a comprehensive education to prepare the environmental engineers of the future for a wide range of tasks.

Undergraduate studies

The first four semesters provide the basic training required for technical environmental protection. Besides natural sciences, ecological aspects (such as air chemistry, water/soil ecosystems, waste management) are covered as well. Semesters five through seven are concerned with the specialised technical training in environmental engineering. In semester seven, a bachelor's thesis is to be submitted.

Graduate studies

The consecutive master's programme consists of three semesters. During semester one and two, compulsory subjects, classes in the majors, and electives are to be taken. The third semester is reserved for the master's thesis. The master's programme concludes with a Master of Science degree (Diplomingenieur).

■ Major Process Engineering

Managing the interplay between different processes is one of the tasks of process engineering, as well as considering the effects that varied processes have on humans and the environment. The basis for process engineering as an engineering discipline is the understanding that the large number of processes can be traced back to a comparatively small number of basic operations. Modern process engineering however, is not restricted to the dissecting of processes into basic operations and describing and analysing them. It also explores an in-depth understanding of material-specific interconnections, while at the same time striving to consider processes as a whole ("process techniques"), to model them, control them, and eventually optimise them as a whole.

■ Major Supply and Disposal Technology

Developments of the past few years have shown that more and more graduates are finding employment not only in the actual sectors of environmental and disposal technology but also in the supply sector, such as water, energy, and raw material supply and the fields of environment, quality and energy management. This trend can be attributed to the fact that industrial environmental protection was initially primarily concerned with emissions and waste in the most environmentally-compatible manner possible, by appropriate treatment processes. Today, the focus is on recycling and using waste material as raw material in highly industrialised waste processing plants. Production-integrated industrial environmental protection attempts to avoid emissions and aims to collect waste in order to process, provide and use it as an energy source or raw material.

Qualification profile/fields of employment

The interdisciplinary and cross-vocational nature of the study programme enables students to find employment in companies of differing sectors, such as environmental engineering, waste management, process and systems engineering, supply technology, energy management, environmental management, consulting etc., as well as with public authorities and scientific institutions. Their contributions, their advice and their expert assessments are required in all matters of technical environmental protection.

Dipl.-Ing. Katharina Rechberger, Rohrdorfer Process and Systems Engineering, Germany: "TThe friendly atmosphere among students and the close contact with professors and lecturers is what I liked most about studying in Leoben. The programme covers a wide range of fields and is very practice related. It served me as a good starting point to my career and provided me with a broad basis for my tasks in the field of process and systems engineering."

Resources are limited, creativity is unlimited.

INFOBOX

Available degrees:
BSc, Dipl.-Ing. (MSc), Dr.mont. (PhD)

Duration:
7 semesters for the bachelor's programme,
3 semesters for the master's,
6 semesters for the doctoral programme

Focus:
Process engineering, supply and disposal technology, environmental engineering, recycling, waste processing technology

Programme Director:
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MONTAN UNIVERSITÄT

POST GRADUATE COURSES

Thirteen different postgraduate courses can be pursued at the Montanuniversität upon the successful completion of a degree programme. The spectrum ranges from an business-oriented MBA degree to a course in Blasting Engineering.

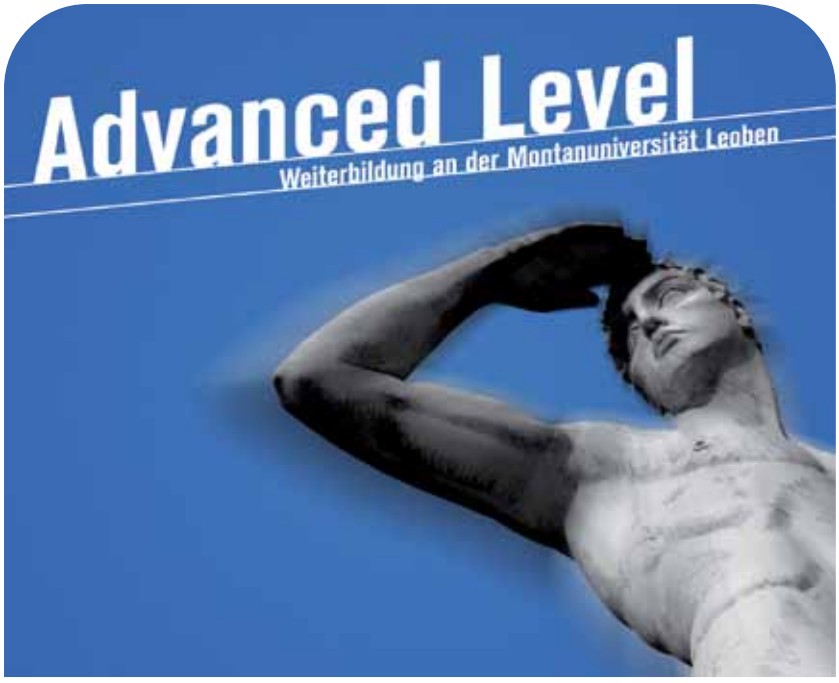
Further information http://weiterbildung.unileoben.ac.at/

MBA in Generic Management

The key topics covered by this course are business administration, management and leadership, quality management, sustainability & energy management and risk & safety management. These elements are all combined to form a practical, integrated (generic) management system. The course also includes the option to complete additional training to qualify as a safety officer.
Course language: German and English
Qualification: academic degree MBA (Master of Business Administration)
Duration: four semesters, part-time

Product Development

This course incorporates topics from the fields of technology, marketing and business which are relevant to product development, such as creative and innovative methods, industrial design, the selection of materials and manufacturing processes, product design, quality assurance, technology monitoring, legal aspects, project management, cost evaluations, marketing and sales.
Course language: German
Qualification: postgraduate certificate, title of "Academic Product Developer"
Duration: three semesters, part-time



Quality Management

The main subjects taught in this course are business administration, management and leadership and quality management, with a focus on specific issues and challenges. Significant emphasis is placed on viewing quality requirements as an integral part of corporate management. The course is primarily aimed at people in managerial positions as well as the next generation of quality managers.
Course language: German and English
Qualification: postgraduate certificate, title of "Professional Quality Manager"
Duration: three semesters, part-time

Quality Assurance in Laboratory

The key areas covered by this course are the fundamentals of quality assurance, the application of quality assurance in the laboratory, as well as quality management in the laboratory, which covers international requirements and tools for analytical quality assurance in the laboratory, key analytical values, method validation, the evaluation of measurements and analysis results, data and document management, preparatory work for laboratory accreditation, audits and inspections.
Course language: German
Qualification: postgraduate certificate
Duration: five modules, from one to five days

Recycling

The course comprises of all fields related to the recycling process: technology, market and business-related The course covers the recycling processes for different materials, safety aspects, legal requirements and their effects and commercial considerations.
Course language: German
Title: postgraduate certificate, title of "Academic Recycling Engineer"
Duration: three semesters, part-time

Sustainability Management

This course covers the sustainable development of companies and tackles the conflict between economic and environmental considerations.
Topics covered: business administration, management & leadership as well as material flow management, corporate social responsibility, environmental management, environmental law and energy management.
Course language: German and English

Qualification: postgraduate certificate, title of "Academic Sustainability Manager", postgraduate certificate in environmental management
Duration: three semesters, part-time

Master of Engineering in Resource Management and Recycling

In order to secure the raw materials supply for Europe, waste and recyclable materials will be used increasingly as secondary raw materials in future. The course is designed to provide people in executive positions within the waste industry, disposal management and recycling with a profound and broad training, so that they are qualified to carry out strategic positioning, to plan, execute and optimise in-house and external recovery processes. Besides technical, ecological, economic and legal knowledge, management training is also provided.
Course language: German
Qualification: academic degree Master of Engineering
Duration: four semesters, part-time

NATM Engineering (New Austrian Tunnelling Method Course): Master of Engineering and certificate

This course is concerned with the preparation work for tunnel constructions and other underground constructions according to the principles of the "New Austrian Tunnelling Method", planning, performance of construction work as a site manager or as a consultant, and specialist geotechnical, structural, organisational, contractural and commercial skills.
Course language: English
Qualification: postgraduate certificate "Academic NATM Engineer" or academic degree "Master of Engineering"
Duration: four or six (for master's degree) semesters in blocks, one semester for thesis

International Mining Engineer

This course provides a deeper knowledge of raw materials extraction and the scientific disciplines this entails. Compulsory modules are mining engineering, mining safety and project management and financing. Elective modules include: underground ore or coal mining, gold mining, open-cast mining & quarrying technology, materials handling technology.
Course language: English
Qualification: postgraduate certificate, title of "Academic International Mining Engineer"
Duration: four semesters, part-time

Blasting Engineering

The course covers innovations in, and experiences of, blasting operations in open-cast mines, quarries and in rock blasting for construction work, blasting system measurements, presentation of modern processes for monitoring blasting operations, environmental impact of the blasting, and a practical blasting course.
Course language: German
Qualification: certificate blasting permit (opportunity to gain a blasting permit for general and deep borehole blasting)
Duration: one semester

Raw Material Processing

The course aims to provide comprehensive knowledge to people who are already involved in the field of mineral processing of primary and secondary raw materials, or plan to do so in the future. The course covers a wide range of relevant topics such as fundamentals of physics, chemistry, mineralogy and geology, fundamentals of mineral processing, legal and safety requirements, environmental protection, plant and process safety, lab class in mineral processing, special processing of primary and secondary raw materials, and excursions.
Course language: German
Qualification: postgraduate certificate, title of "Academic Raw Material Processing Engineer"
Duration: two semesters, part-time

Advanced Drilling Engineering

This master's programme combines a unique selection of specialised courses into an integrated, intensive and comprehensive drilling engineering education programme, using state of the art facilities, technologies and academic and field resources.
The objective of this programme is to enhance the competency in the design, planning and execution of drilling operations and to deliver an accelerated learning experience that transforms professional drilling engineers, supervisors and managers into subject matter experts in their skill pool.
The programme is a collaboration between the Montanuniversität Leoben as the programme coordiantor and partner universities that will expedite the implementation of the course programme and facilitate the adoption of such a programme within their training programmes. Start: March 2014.
Course language: German
Qualification: joint degree "Master of Engineering" from the Montanuniversität Leoben and the partnering academic institutions
Duration: set of intensive modules taking place over the course of 24 months as the standard duration, each module will be five to seven work days

Welcome