For more detailed information about the Faculty of Civil Engineering, a profile of Departments, personnel, etc. please see the Faculty website: www.fast.vsb.cz.

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Technical University of Ostrava
WELCOME GUIDE FOR EXCHANGE STUDENTS
Academic year 2004-2005, Czech Republic

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Faculty of Civil Engineering

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Content

1 Introduction
The aim of this guide is to make foreign students familiar with the study at the Faculty of Civil Engineering, part of the Technical University of Ostrava and to provide them with the basic information for day-to-day life in Ostrava, as well as in the Czech Republic. It won’t answer every question and problem they will have at
the beginning of their study in this country, but with the assistance of the Faculty of Civil Engineering International Office and its staff, their lives in Ostrava can be a bit more comfortable.

2 Technical University of Ostrava
The Technical University was founded in 1849, in Pribram, and in 1945 was moved to Ostrava which became the center for the mining and metallurgical industry in former Czechoslovakia. In 1973, most of the University was moved to the modern complex of buildings in Ostrava-Poruba.

Currently, the Technical University of Ostrava has seven faculties:

- Faculty of Economics
- Faculty of Civil Engineering
- Faculty of Mechanical Engineering
- Faculty of Electrical Engineering and Informatics
- Faculty of Mining and Geology
- Faculty of Metallurgy and Material Engineering
- Faculty of Safety Engineering

There are almost 11 000 students studying at these faculties. The operation of the school is ensured by its capable staff of almost 2 000 with tuition being provided by over 850 university teachers. The Technical University of Ostrava is a public university.

2.1 Faculty of Civil Engineering
The university is located on the campus in Ostrava-Poruba, the Faculty of Civil Engineering is situated close to the campus. The Faculty of Civil Engineering has always been relatively independent from the Technical University of Ostrava. It was founded in 1997 and today it has approximately 1 400 students. Tuition at the faculty is provided by 63 university teachers, but also by numerous external teachers and experts employed in industry, commerce and the public sector.

The Faculty of Civil Engineering offers a wide range of study programmes on a daily basis from the areas of building construction, municipal engineering, building materials, underground engineering, geotechnics, bridge and transport construction, structural mechanics namely in bachelor, master and doctorate degree courses. The graduates of the Faculty of Civil Engineering find wide application as civil, construction or design engineers in the building constructions establishments, building authority, engineering corporation act. More than 400 students have graduated from the master studies at the faculty.

2.1.1 Academic Programs
The Faculty provides the following study programmes and awards these degrees:

- **Bachelor Study Programs.**
  After the final state examination: „Bakalář” (i.e. „Bachelor“ abbreviated „Bc“).

- **Master Study Programs.**
  After the state examination: „Inženýr” (i.e. „Engineer“) abbreviated as „Ing.”.

- **Doctoral Study Programs**
are the highest level of university studies. Doctorates take a three-year study which is completed with a doctoral thesis and a rigorous examination. Successful graduates are given the title of „Doctor“, abbreviated „Ph.D.‖

These studies may be pursued in the following study programmes:

- **Bachelor Study Programs:** Civil Engineering – Geotechnics, Building Materials and Diagnostics, Transport Structures, Municipal Structures and Engineering, Urban and Civil Engineering
  Architecture and Civil Engineering – Architecture and Civil Engineering.

- **Master Study Programs:** Civil Engineering – Geotechnics, Building Materials and Diagnostics, Transport Structures, Urban and Civil Engineering Building Structures.
  Architecture and Civil Engineering : Architecture and Civil Engineering.

- **Doctoral Study Programs:** Civil Engineering – Mining and Underground Engineering, Rock Engineering, Theory of Structures, Civil and Urban Engineering

Teaching and research activities are carried out by means of seven departments (see a.m. part No.1). Chosen In Czech or English.

2.1.2 Library

The main part of the Library is situated on the University campus. The opening hours of the Library at the University campus are:

Mon., Tues., Wed., Fri. 8.30-15.30
Thurs. 12.00-15.30

The University Library offers a wide range of services to academic staff and students, and it co-operates with other libraries at a national as well as on an international level. Via the Library’s homepage, you can reach sites where relevant information may be retrieved (http://www.knihovna.vsb.cz/).

The State Library is situated in the centre of the city of Ostrava. It offers a broader spectrum of literature than the University Library.

Opening hours: Monday – Friday 8.30-19.00
Saturday 8.30-12.00
It is necessary to obtain an identification card for access to the library.

2.1.3 Computer Unit

An extensive faculty computer network was newly opened in 2002, after the reconstruction of new buildings. On this network it is also possible to use the Internet. The faculty has about 270 workstations, they are placed in computer classrooms available to students, for the purpose of teaching and for independent work. Internet elements are gradually applied to the internal operation of the faculty computer network and with regard to this, the Faculty of Civil Engineering operates its own WWW server which is available on the Internet via the following URL address: http://www.fast.vsb.cz/.
2.2 International Office

The International Office of the Faculty of Civil Engineering was established in 1997. It is responsible for organization, information and development activities in the field of foreign relations catering to the needs of the Faculty of Civil Engineering.

The International Office has a staff of two, and student assistants. They will guide you through the first days of your stay and you can reach at least one of them every day, Monday-Friday 7:30-11:00 a.m.

Jaroslav Broul, Vice-Dean for External Relations
Eva Theuerová, Secretary, External Relations, Student assistant at the International Office.

The International Office is situated in the Faculty of Civil Engineering building, block F, first floor, office F 201. You can find the Faculty of Civil Engineering at L. Podéště 1875, Ostrava-Poruba.

Our address: VŠB – Technical University of Ostrava
L. Podéště 1875, 708 33 Ostrava-Poruba, Czech Republic
tel.: +420 596 991 331, fax.: +420 596 991 374,
e-mail: eva.theuerova@vsb.cz

2.2.1 Student Identity Card:
Each student is provided with a student identity card stating his/her name and identity code. It is important that you always carry your student identity card; without it you cannot use the school’s library, PC rooms, university canteens, and sport facilities. Some museums and other facilities also give discounts to a student showing a valid student card. We recommend you to arrange the international student card (ISIC) before leaving home.

2.2.2 E-mail, Faxes, Phone Calls, Pigeonholes
You will be given an e-mail user name upon arrival. It is possible for you to send and receive faxes to/from your university base. Private faxes should, however, be faxed from the post office. If it is very urgent for you to phone home, you may ask to use a phone at the International Office.

Inside the International Office, Office F 201, you will find shelves with a pigeonhole for exchange students. Here you will find mail from home, faxes from your home university, and notes left by your classmates for you.

2.2.3 Study
Through this office the student should handle his or her choice of courses and registration. If you are interested in a particular course not available in English, the office will put you in contact with the teaching staff in order to discuss the possibility of some form of private tuition in English by the teachers. Here a student will be given a form Report on the Results of Study to which the results of his or her examinations will be entered by particular teachers. The Report will be transformed into the Transcript of Records. Alternatively, the Faculty of Civil Engineering can prepare courses in German.
2.2.1 Housing
If you fill in the housing registration form before the deadline (see below), the International Office will apply for accommodation on your behalf. It is very difficult to find a private room and that is why accommodation is ensured in the Student Halls of Residence on the University campus. There is a newly renovated student dormitory on the University campus in Ostrava-Poruba. There is also a number of cafeterias and snack-bars. Students can pay 60 CZK per night if they share a room with another person. The students also share a kitchen (with basic utensils) and a lounge room. If they wish to stay alone they have to pay 120 CZK per night. There are basic facilities in the room, you do not need to bring bedding and bed linen.

2.3 Registration Procedures

2.3.1 Housing Registration
A **Housing Registration Form** must be completed and returned to the International Office, Faculty of Civil Engineering before
- **15 May** for the autumn semester
- **15 December** for the spring semester.

2.3.2 Course Registration
As a SOCRATES/ERASMUS student at the Faculty of Civil Engineering, you have to fill in the following forms, before you arrive in the Czech Republic:
- **Student Application Form**
- **Learning Agreement**.

All forms must be completed and returned to the International Office of the Faculty of Civil Engineering **before: 15 June** for the autumn semester, and **15 December** for the spring semester. Both forms must be signed by people responsible for you (institutional coordinator, departmental coordinator), before being send to the Faculty of Civil Engineering, VŠB-TU Ostrava. All forms can be found as enclosures to this Guide.

2.3.3 Preliminary Requirements for SOCRATES/ERASMUS Students
SOCRATES/ERASMUS students who want to study at the Faculty of Civil Engineering, VŠB-TU Ostrava must apply by means of the SOCRATES/ERASMUS co-ordinator at their home institution. Foreign students are entitled to attend all courses in Czech or any course in English, from the List of Courses in chapter 5 (Study Programmes).

2.3.4 Registration upon Arrival
The first thing the students should do is to go to the residence assigned to them. Then they contact the faculty Erasmus coordinator and arrange a meeting to discuss their schedule of study programmes. The Faculty Erasmus coordinator will help them with all neccessary documents required for obtaining a student transport pass, access to the university canteen and library. Also, students should go to the Immigration Office to be registered.
2.4 **AIESEC**

AIESEC is an international, politically independent, non-profitable, educational organization, and one of the biggest international student organizations. It is the aim of the association to facilitate international understanding and cooperation, development of students’ personalities, improving the level of their professional and language knowledge and growth of their managerial and organizational skills. This organization performs its activity at more than 850 universities in 87 countries all over the world, to which the Faculty of Civil Engineering is listed. AIESEC closely co-operates with the Faculty of Civil Engineering administration and it also helps the International Office with the organization of foreign students stay within the SOCRATES/ERASMUS programme (seminars, trips, etc.). More detailed information can be found [www.vsb.cz/cz/vitejte/inf_stu.htm](http://www.vsb.cz/cz/vitejte/inf_stu.htm).

3 **Practical Information**

### 3.1 Before Arriving in the Czech Republic

When you are nominated by your university as an Erasmus student, please fill in the enclosed Application Form and Learning Agreement and send them back. We shall confirm the Application Form and Learning Agreement and send them back to you together with a Letter of Acceptance and Confirmation on your Accommodation, and the Czech text of the Erasmus grant statement (to be copied on your university letterhead paper, signed and stamped by your Erasmus office). Documents necessary for entrance and the stay in the Czech Republic:

**Up to 90 days**

- Valid passport,
- Letter of Acceptance,
- Financial Agreement or other form of confirmation by your university from which you have received a grant,
- Confirmation of guaranteed accommodation in the Czech Republic (supplied by our International Office),
- 3 photos
- Your health insurance card.
- Visa, if the home country of a visitor has not signed an agreement on visa-free relations. The visa can be obtained from the Czech Republic representative authorities abroad. The short term stay, for which a passport and visa are sufficient, can last up to 90 days.

**Over 90 days**

- The above documents plus,
- Confirmation of absence of criminal record from your home country.
- A form by which you apply for a report from the Czech criminal record register confirming that you have no criminal record in the Czech Republic. This form is available at all the Embassies and you can fill it in when applying for the visa.
DON´T FORGET!!!
You can apply for the permit only outside of the Czech Republic. Application in the Czech Republic is impossible.

3.2 Getting There
It is possible to arrive in Ostrava by plane, either from Prague or Vienna. Ostrava-Mošnov airport is about 25 km from center of Ostrava and can be reached by bus or taxi. Or you can go from Prague to Ostrava by train. This takes about four hours.

The Faculty of Civil Engineering is situated in the suburb from the center of Ostrava. From the Ostrava-Svinov railway station, it can be reached by bus No. 49 or 61, when heading towards Ostrava-Poruba (bus stop Ludvíka Podéště).

3.3 Cost of Living
International students should have sufficient funds to cover their expenses while studying in the Czech Republic. Living expenses for the average student are about 8 000 CZK (= 260 EUR) per month (in Ostrava).

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>250 CZK</td>
</tr>
<tr>
<td>Books</td>
<td>500 CZK</td>
</tr>
<tr>
<td>Housing</td>
<td>2 000 CZK</td>
</tr>
<tr>
<td>Food, clothing</td>
<td>3 500 CZK</td>
</tr>
<tr>
<td>Others</td>
<td>1 500 CZK</td>
</tr>
</tbody>
</table>

3.4 Health Insurance
It is strongly recommended that you inform your home insurance office about your stay in the Czech Republic. Medical care is provided free of charge for foreign visitors only in emergency situations, otherwise there is a charge. You may be asked to show your health insurance card by the admission officer.

A general practitioner and a dentist can be seen in the modern Health Center next to the dormitory buildings in Ostrava-Poruba.

3.5 Other Practical Information
3.5.1 Sports and Leisure
The University campus offers various opportunities for leisure. Sports activities are offered by playing Fields, gymnasiums, tennis courts, fitness centers, a sauna is available, too. Students may relax in students’ clubs.

The City of Ostrava offers visitors various opportunities to practice sports and enjoy their leisure time:

- Indoor swimming pools (swimming pool, sauna, solarium).
- Fitness centers.
- Indoor sports (ice hockey, volleyball, basketball, floorball, squash, bowling, billiard, handball, riding-schools).
- Outdoor sports (hiking, biking, horse-riding), Ostrava ZOO.
- The observation tower of the New Town Hall (86 m high).
- Astronomical observatory and planetarium.
• Open-air coal-mining museum.
• Many places of interest around the City of Ostrava

3.5.2 Social Life
• Theatres (all performing on high standards).
• Cinemas, 1 Cinestar Multicinema.
• Various cultural facilities (9 Performance and Arts Centers, the Janáček Philharmonic Orchestra of Ostrava, the Ostrava Conservatory).
• Rock clubs (Parník, Rokle, Sklep).
• A street called Stodolní, full of bars, discos and restaurants.
• 16 galleries and exhibition halls, specialised restaurants (Indian, Asian, Greek, Italian, Spanish...).
• Department stores, supermarkets (9.00-22.00), a hypermarket TESCO (non-stop), Mc Donalds, and a number of other specialized shops (open usually from Monday to Friday: 9.00-18.00 p.m., on Saturday 9.00-12.00 a.m.).
• Banks (open from Monday to Friday: 8.00-17.00).
Credit cards are becoming more widely accepted now, but still not commonplace. Most hypermarkets and large supermarkets accept credit cards, as do most of the shops in the center of Ostrava. The most accepted credit cards are: MasterCard/EuroCard, Visa, Diner’s Club, and Maestro.

3.5.3 Telephones
Calling within the Czech Republic:
Phone cards are available at most news stands and Post Offices. Value: CZK: 175, 320. Information about Czech phone numbers 120, 1180, Information about foreign phone numbers 1181, Emergency numbers (fire, ambulance, police ) 150, 155, 158.

International calls:
The country code for the Czech Republic is 420.
It is possible to dial directly from the Czech Republic to a whole range of foreign countries from call – boxes (except Russia, Ukraine and Vietnam) using phone-card. To make a direct call, dial 00 + country code + number.

3.5.4 Transport
• It is possible to reach any destination in Ostrava using city transport (buses, trams and trolley buses).
• A 45-minute ticket costs 12 CZK, a 15-minute one 8 CZK.
• There is an option to buy long-term tickets (for a day or a month or a quarter of a year).
• Taxis are available, but they are rather expensive in comparison to city transport.

3.5.5 Important Addresses and Phone Numbers
NON STOP Post Office: 1046 Wattova Str., Ostrava 1, phone: 596 277 203.
Health Service: phone: 596 121 111.
airline timetables, taxi services, tickets to theatres and concerts, maps, souvenirs, postcards, phone cards, city transport tickets, accommodation arrangement, guides and interpreter services
Ostrava Airport: 596 659 136
Railway Main Station information: 596 126 049.

3.5.6 Holidays
January 1: New Year’s Day
Easter Monday: variable each year
May 1: May Day
May 8: National Day – Day of Liberation from Fascism (1945)
July 5: The Day of St. Cyril and Methodius
July 6: National Day – Jan Hus burned at the stake (1415)
October 28: National Day – Czechoslovak Independence Day (1918)
November 17: International Students’ Day
December 24: Christmas Eve
December 25-26: Christmas Holiday

4 Study at the Faculty of Civil Engineering
4.1 How to Study at the Faculty of Civil Engineering
The courses you have chosen may be organized as lectures, seminars, tutorials and projects. (Teaching methods include lectures, tutorials, seminars and cases). At the beginning of a semester your teacher will provide you with a course description giving you a general framework of the course and the list of recommended or required reading. Some courses are attended by Czech and foreign students, but most of them are attended by Czech students only. Lectures at the Faculty of Economics are taught:

a) in Czech – foreign students attend courses together with Czech students,
b) in English – foreign students can attend chosen courses in English. But these courses are based on a minimum number of students,
c) in English – in case the above mentioned condition is not fulfilled, courses are conducted on the basis of tutorials,
d) for a very limited number of courses, lectures can be given in other international languages on the basis of tutorials (German, Russian).

Your Learning Agreement Form serves as a registration for examinations. All examinations dates will be announced by particular teachers at the introductory lesson of each course. Results for oral or written examinations will be announced immediately and entered in the Report on Results of Study which, after passing all examinations, will be handed in to the International Office. This filled out form will serve as a background paper for Transcript of Records (see at the end of this Guide). The Transcript of Records will be sent to your school approximately three weeks after the examinations have finished.
4.2 Examinations
Examinations are oral, oral and written, or written. The type and date of examinations, is determined by a lecturer at the beginning of the term, individually, for every type of course.

If a student fails in an examination, he/she can repeat it twice, the examiner will decide on the new dates. If you should fall ill and, therefore, be unable to participate in or complete the examination you may be given permission to participate in a new examination. You must get a medical certificate from your physician on the day of the examination and send it to the International Office.

The student sitting for an examination must bring his/her own pens and a pocket calculator when necessary. The Faculty provides paper and only the officially provided paper may be used.

4.3 Grading System
The grading system for evaluation of foreign students, studying at the Faculty of Civil Engineering on the SOCRATES/ERASMUS program or other foreign students.

<table>
<thead>
<tr>
<th>ECTS Grading Scale</th>
<th>Faculty of Civil Engineering Grade</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>excellent</td>
</tr>
<tr>
<td>B</td>
<td>2+</td>
<td>very good</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>good</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>satisfactory</td>
</tr>
<tr>
<td>E</td>
<td>3-</td>
<td>sufficient</td>
</tr>
<tr>
<td>FX</td>
<td>4</td>
<td>fail (some more work required)</td>
</tr>
<tr>
<td>F</td>
<td>4</td>
<td>fail (considerable work required)</td>
</tr>
</tbody>
</table>

5 Study programmes – Academic Calendar
The study program is based on the credit system. During a period of two semesters (one academic year) the student will acquire 60 credits (ECTS credits) which consist of compulsory courses and a certain number of optional courses. Over five years of studies it amounts up to 300 credits.

The Faculty of Civil Engineering does not provide any comprehensive study program for foreign students coming for 1 or 2 semesters of studies, but they can choose any course from the given List of Courses.

The following List of Courses taught in English has been arranged according to particular departments.

Lectures given within some of the courses in the list are delivered in other world languages (G – German, R – Russian).

The List includes the name of a teacher responsible for the course, semester (summer – S or winter – W), the number of ECTS credits and the form of evaluation.

- Department of Building Structures
- Department of Urban Engineering
- Department of Building Materials and Diagnostics
- Department of Geotechnics
- Department of Architecture and Civil Engineering
- Department of Transport Construction
- Department of Structural Mechanics
### 5.1 Bachelor Study Programme – Subjects

Bachelor Study Programme **Civil Engineering**, branch *Urban and Civil Engineering*

<table>
<thead>
<tr>
<th>Semester</th>
<th>Subject</th>
<th>Assessment</th>
<th>Lectures</th>
<th>Seminars</th>
<th>Credits</th>
<th>Guarantor</th>
<th>Number of the subject</th>
<th>LECTURER</th>
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<tbody>
<tr>
<td>1</td>
<td>Mathematics I</td>
<td>E</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>714</td>
<td></td>
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<tr>
<td>1</td>
<td>Constructive Geometry</td>
<td>E</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>714</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Building Materials</td>
<td>E</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>223</td>
<td>223116</td>
<td>Jiří Lukš</td>
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<td>1</td>
<td>Chemistry</td>
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<td>1</td>
<td>Fundamentals of Civil Engineering and Architecture</td>
<td>CC</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>225</td>
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<td>Martina Peříková</td>
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<td>1</td>
<td>Foreign Language</td>
<td>C</td>
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<td>Structural Statics</td>
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<td>205001</td>
<td>Lenka Jurčíková</td>
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<td>2</td>
<td>Foreign Language</td>
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<td>2</td>
<td>1</td>
<td>712</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Philosophy</td>
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### 5.2 Master Study Programme – Subjects

Master’s Programme **Civil Engineering**, branch *Urban and Civil Engineering*

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### 5.3 Unit Catalogue

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<td>The main content of this subject is obtaining skills of working with PC, orientation and exploitation of computer networks, user operating systems DOS and WINDOWS, master softwares – WORD and EXCELL from the Microsoft Office and the Internet.</td>
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Assessment: Compound examination
Unit Syllabus: Design and analyses of basic reinforced elements of structures in accordance with ultimate and serviceability limit states, analyses of bar elements and structures.

221926 Basis of Action on Building Structures
Extent: 2
Status: Mandatory, 4th semester
Prerequisites: Structural Statics, Elasticity and Plasticity
Assessment: CC
Unit Syllabus: An action is defined as a cause which may give rise to changes in stresses, strains, the strength or stiffness of a structure. Actions are classified into: loads, deformations and environmental actions. Groups of load. Load combination. The long term effect of roads.
Textbooks: P ENV 1991-1, Eurocode 1, Basis of design and actions on structures
Part 1: Basis of design
Part 2-1: action on structures – Densities, self weight and imposed loads
Part 2-2 action on structures – Wind loads
Part 2-3 action on structures – Snow loads
ČSN 73 00 35 Zatížení stavebních konstrukcí (in Czech)

221927 Steel and Timber Structures and Design I
Extent: 5
Status: Mandatory, 6th semester
Prerequisites: Basis of Action on Building structures
Assessment: Compound examination
Textbooks: P ENV 1993-1, Eurocode 3, Design of steel structures - General rules and rules for building
P ENV 19995, Eurocode 5, Design of timber structures - General rules and rules for building

221928 Steel and Timber Structures and Design III Advanced
(Master’s Programm)
Extent: 5
Status: Mandatory, 2nd semester
| Prerequisites: | Steel and Timber Structures (Bachelor) |
| Assessment: | Compound examination |
| Unit Syllabus: | Theoretical and technical rules for the design of complicated steel and timber structural systems of constructions, the basic principles of design composite structures. |
| Textbooks: | P ENV 1993-1, Eurocode 3, Design of steel structures - General rules and rules for building  
P ENV 19995, Eurocode 5, Design of timber structures - General rules and rules for building |

**221929 Steel and Timber Structures and Design II**

| Extent: | 5 |
| Status: | Mandatory, 7th semester |
| Prerequisites: | Basis on Actions on Building Structures, Design of Steel and Timber Structures |
| Assessment: | Compound examination |
| Unit Syllabus: | Theoretical and technical rules for the design of structural systems of simple steel and timber constructions. Production and erection. |
| Textbooks: | P ENV 1993-1, Eurocode 3, Design of steel structures - General rules and rules for building  
P ENV 19995, Eurocode 5, Design of timber structures - General rules and rules for building |

**222201 Urban Planning Bases**

| Extent: | 4 |
| Status: | Mandatory, 5th semester |
| Prerequisites: | Fundamentals of Civil Engineering and Architecture |
| Assessment: | CC |
| Unit Syllabus: | The subject deals with the urbanistic city structure, i.e. the zones of habitation, production, services and transport, downtown and country outskirts. |

**222202 Typology of Industrial Buildings**

| Extent: | 5 |
| Status: | Mandatory, 6th semester |
| Prerequisites: | Building Construction I, II, Statics of Building Structures |
| Assessment: | Compound examination |
| Unit Syllabus: | Principles of the industrial construction design related to area planing, production technology, industrial buildings, structural design of the industrial buildings. Refurbishment and re-conversion problems of industrial buildings in cities. |
Textbooks:

**222203** Typology of Housing and Public Amenity Buildings

Extent: 5  
Status: Mandatory, 6th semester  
Prerequisites: Building Structures I, II, III  
Assessment: Compound examination  
Unit Syllabus: The subject encompasses housing building typology requirements and their characteristics. The objects in question are mostly tenement houses (with maisonettes, galleries or point-houses), personal accommodation houses, including separately located family houses, row houses, atrium houses; constructions for common accommodation (hotels, pensions, hostels). The subject deals also with the basic characteristics of buildings for the public amenity purposes, i.e. health care and social security buildings, buildings for cultural purposes, for food serving and catering, education, services and administration, sport, distribution units. The overview of these constructions is to be targeted at their structural linking and at an urbanistic approach.

Textbooks:  

**222204** Territorial Planning

Extent: 5  
Status: Mandatory, 7th semester  
Prerequisites: Building Structures I and II  
Assessment: Compound examination  
Unit Syllabus: The subject deals with the role and purpose of territorial planning and its tools, with the factual contents thereof, with the process of completing and approving territorial planning documentation. It also treats the existing legislation and – in outline – the legislation in course of preparation. In this context it also deals with the territorial permission process.

Textbooks:  
Cities of Tomorrow, Peter Hall, Blackwell 2002  
Urban and regional Planning, Peter Hall, Blackwell 2002

**222205** Organisation of Public Administration

Extent: 5  
Status: Mandatory, 7th semester
Prerequisites: None
Assessment: Compound examination
Unit Syllabus: This subject is focused on the basic idea of Organisation of Civil Services. The public administration has two not completely independent parts: self-government, and state administration. For a student it is necessary to understand these systems on all levels: state, regional and municipal. The second part of this subject is based on the economic background of the functioning regions and municipalities. One independent topic is concentrated on a comparison of the civil service system of the Czech Republic with a few systems of the EU countries.

Textbooks:

222206 Legal Regulations in Building Industry
Extent: 2
Status: Mandatory, 8th semester
Prerequisites: Territorial Planning
Assessment: C
Unit Syllabus: The subject is focused on basic information about law, directives, regulations and rules in the Czech Republic. The topic gives information about the role of rules in society. Rules connected with planning and building laws and regulations, economic law, copyright, industrial law, clean environmental acts, health, and safety at work and so on.

Textbooks:

222207 Management and Economics in Civil Engineering
Extent: 6
Status: Mandatory, 8th semester
Prerequisites: Building Structures I, II, III
Assessment: Compound examination
Unit Syllabus: The subject deals with basic information according to building market conditions and the legal status of building firms, including liability relations in the building process. It concentrates on preliminary production and production preparation, production management and planning. Structure schedule planning and basic building-site operation concepts are also a part of the course. Preliminary knowledge of technical, economical and social backgrounds is expected.


222208 Construction Cost Estimation and Pricing
Extent: 6
**Status:** Mandatory, 8th semester  
**Prerequisites:** Building Structures I, II, III  
**Assessment:** Compound examination  
**Unit Syllabus:** Acquisition of theoretical knowledge in the given area, to be used in case of any kind of requests addressed to a real estate expert – this is the content of the subject. It contains, further on, a complete explanation and overview of the notions used in the construction of cost estimation, like: invoicing, budgeting, time schedule, cost estimates. An explanation of relations between the owner, designer and the contractor, is also part of the subject.  
**Textbooks:** Whole Life-Cycle Costing, ABDELHALIM BOUSSABAIN & RICHARD KIRKHAM, Blackwell Science, 2003

**222301**  
**Typology of Buildings**  
**Extent:** 5  
**Status:** Mandatory, 1st semester (Master's Programme)  
**Prerequisites:** Building Structures I, II, III  
**Assessment:** Compound examination  
**Unit Syllabus:** The subject encompasses basic information of industry and industrial building development trends in the Czech Republic and current industry transformations, including individual building status analysis. It explains industrial buildings typology principles, industrial zones and building planning and designing. In unison with working environments, including space arrangement principles.  

**222302**  
**Regional Planning**  
**Extent:** 5  
**Status:** Mandatory, 1st semester (Master's Programme)  
**Prerequisites:** Building Structures I, II, III, Territorial Planning  
**Assessment:** Compound examination  
**Unit Syllabus:** The subject deals with the role and purpose of territorial planning and its tools, with the factual contents thereof, with the process of completing and approving territorial planning documentation. It also treats the existing legislation and – in outline – the legislation in course of preparation. In this context it also deals with the territorial permission process.  
**Textbooks:** Cities of Tomorrow, Peter Hall, Blackwell 2002
**222303 Municipal Engineering**

Extent: 4  
Status: Mandatory, 1st semester (Master’s Programme)  
Prerequisites: none  
Assessment: CC  
Unit Syllabus: This subject is focused on preparing and decision-making and conceiving infrastructure equipment for area, region and space. The major topic is connected with buried services, the position of safety space, co-ordination with each other, the legal level and so on. This subject prepares students for the position of project engineer or construction manager.

Textbooks:

**222304 Urban Planning**

Extent: 5  
Status: Mandatory, 2nd semester (Master’s Programme)  
Prerequisites: Building Structures I, II, III  
Assessment: Compound examination  
Unit Syllabus: The subject deals with the urbanistic city structure, i.e. the zones of habitation, production, services and transport, downtown and country outskirts. Apart from that, it deals with the town size and categorisation, population density and the extent of building-over. The urbanistic findings on the organisation and composition are summarised, the natural conditions, artistic viewpoints and the historical town centres are dealt with. The subject describes technical, transport and the civic town infrastructures.

Textbooks:  
Cities of Tomorrow, Peter Hall, Blackwell 2002  
Urban and regional Planning, Peter Hall, Blackwell 2002

**222305 Brownfields Regeneration**

Extent: 5  
Status: Mandatory, 2nd semester (Master’s Programme)  
Prerequisites: Town Planning  
Assessment: Compound examination  
Unit Syllabus: This subject introduces students to the redevelopment and the reclamation the urban landscape after demage to the enviroment at the mining of opencast the stone. Students must try technical projects to restore the landscape with a natural surface and plants. The examination proves a student's knowledge in designing landscape.

Textbooks:  
Brownfield Sites: Assessment, Rehabilitation and Development  
222306 **Effectiveness of Investments**

**Extent:** 4

**Status:** Mandatory, 2nd semester (Master’s Programme)

**Prerequisites:** none

**Assessment:** Compound examination

**Unit Syllabus:** Short recapitulation of the economic background. Principles of financial reporting, balance sheets, income accounting, cash flow and their contexts. Investment in the economics of enterprises, opportunity studies, feasibility studies. Methods and criteria’s for rating of efficiency of investment. Rating the level of risks in investment. Present values; net present value, future value of investment. This subject prepares students for a job on a middle or high management position.


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223116 **Building Materials**

**Extent:** 6

**Status:** Mandatory, 1st semester

**Prerequisites:** Chemistry

**Assessment:** Compound examination

**Unit Syllabus:** The subject is the fundamental knowledge of study on FAST VŠB-TU Ostrava. Students get acquainted with the basic properties of building materials, their composition, structure and appraisal of harmony standard. Students recognize the examin methods of physical and mechanics properties and transform properties after weigh down. During laboratory work the students check practical knowledge and form seminar work. Most attention is given to concrete and its basic components and ingredients. This subject makes possible the study of the other subjects at the Faculty of Civil Engineering.


Adámek J. a kol.: Stavební materiály, CERM Brno 1997

Cigánek J.: Stavební hmoty, VŠB Ostrava 1984
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Extent</th>
<th>Status</th>
<th>Prerequisites</th>
<th>Assessment</th>
<th>Unit Syllabus</th>
<th>Textbooks</th>
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<tr>
<td>223114</td>
<td>Structure Quality Control and Diagnostics</td>
<td>5</td>
<td>Mandatory, 3&lt;sup&gt;rd&lt;/sup&gt; semester</td>
<td>Building Materials</td>
<td>Compound examination</td>
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</table>
Unit Syllabus: The subject introduces the students to testing methods of buildings materials. The students recognize the individual types of buildings materials, the methods of the testing and statistic values of great number of samples. Part of study is being acquainted with directed of quality with the preparation, operation and removal one destroy buildings.

Cyrkl, Ambrosová, Havlíková: Zkoušení stavebních materiálů, CERM 1997
Normy ISO 9000 až 9004

223141 Environmental Impact Assesment (Master’s Programme)
Extent: 5
Status: Mandatory, 3rd semester
Prerequisites: Fundamentals of Civil Engineering and Architecture
Assessment: Compound examination
Unit Syllabus: 1. Sewage treatment plants for small and large population equivalents. Cesspools.
2. Reconstructions of areas in mining subsidence.
3. Protection of buildings against radon from the soil.
Textbooks: CEPEK, V.: Ekologické stavitelství, ES VŠB Ostrava, 1994
HERLE, J., BAREŠ, P.: Čištění odpadních vod z malých zdrojů znečištění, SNTL Praha, 1990
Zákon 18/1997 „Atomový zákon“
CHUDOBA, DOHÁNYOS, WANNER: Biologické čištění odpadních vod, SNTL Praha, 1991
ČSN příslušného zaměření

224202 Foundation Engineering
Extent: 5
Status: Manadatory, 5th semester
Prerequisites: Statics of Buildings, Elasticity and Plasticity
Assessment: Compound examination
Unit Syllabus: The subject belongs to those serving as a basis for geotechnical engineering. On the basis of a knowledge of statics, elasticity, engineering geology and hydrogeology, it pursues the fundamental topics involved shallow and deep foundations structures, the design methods aimed at evaluating the ground load bearing capacity and foundation settlement, and foundations in difficult ground conditions and in sensitive urban areas. Attention is also given to foundation failures, foundation failure remediation, monitoring methods, modelling, observation methods and risk assessment. The undergraduate gains knowledge about foundation structures and an evaluation of the foundation grounds. He learns to calculate frequent foundation structures utilising up-to-date design methods satisfying contemporary local (Czech ČSN) and European (EC7) legislative and technical standards.


224201 Soil and Rock Mechanics
Extent: 6
Status: Mandatory, 4th semester
Prerequisites: Geology, Experimental Physics, Elasticity and Plasticity, Building Structures I
Assessment: Compound examination
Unit Syllabus: The content of the subject is involved with rock and soil material behaviour. Both material types create natural structures in which construction activities are commonly carried out or they also closely interfere to manmade structures. Introductory lectures refer to ground properties, ground classification systems and fundamental constitutional laws of their behaviour when subjected to the actions internal or external forces. The theoretical part after succeed chapters notifying the application tasks widely met in the geotechnical engineering practice such as slope stability engineering, earth pressures against supports, ground filters, drainage building pits, compaction, consolidation, ground treatment, modelling, and monitoring. The undergraduate will gain knowledge about rock and soil mechanics as source of information for the geotechnical engineering practice. He will learn to solve geotechnical tasks involved in stress strain and failure behaviour of ground structures.


225005 Building Structures I
Extent: 5
Status: Mandatory, 2nd semester
<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Extent</th>
<th>Status</th>
<th>Prerequisites</th>
<th>Assessment</th>
<th>Unit Syllabus</th>
</tr>
</thead>
</table>

Textbooks:
- Matoušková, D.: Pozemní stavitelství I., VŠB-TU Ostrava
- Horniaková, L. a kol.: Konštrukcie pozem. stavieb, SVŠT-Bratislava
- Matoušková, D. a kol.: Skeletové konstrukční soustavy, ES VUT Brno
- Matoušková, D. a kol.: Ateliérová tvorba – příčky, ES VUT Brno

- Puškár A. a kol.: Konštrukcie pozemných stavieb V. Obvodové stény a výplne otvorov.
### 225010 Building Industry Management

**Extent:** 5  
**Status:** Mandatory, 6th semester  
**Prerequisites:** Building Structures I, II, II  
**Assessment:** Compound examination  
**Unit Syllabus:** The subject will construction project preparation and management, namely with design documentation for the purpose of execution, production and manufacturing, within the job, and material and supplies specification lists. Further on, construction planning, namely construction site layout and mobilisation, construction boundary demarcation, site access, etc. Finally construction equipment and its role in site preparation is to be dealt with.

**Textbooks:**  
- B. Kočí a kol.: Technologie pozemních staveb I., VUT Brno 1991  
- J. Tillman: Příprava, provádění a užívání staveb, Prospektum Praha 1992  
- F. Musil: Technologie pozemních staveb, VUT Brno 1989

### 225017 Project I

**Extent:** 5  
**Status:** Mandatory, 7th semester  
**Prerequisites:** Building Structures I, II, III, Statics of Buildings, Building Materials, CAD for Constructions, Building Typology  
**Assessment:** CC  
**Unit Syllabus:** Completing design documentation of housing or public amenities in buildings on the base of a students own studies from the preceding term. The completion of a paper designing both in graphic and textual form, to the extent required for construction purposes. The aim is to enable a student to gain individually basic experience in design.

**Textbooks:**  
- Matoušková D. a kol.: Skeletové konstrukční soustavy, ES VUT Brno  
- Kadlecová A., Matoušková D.: Ateliérová tvorba II., ES VUT Brno  
- Matoušková D. a kol.: Podhledy, podlahy, ES VUT Brno  
- Neufert: Navrhování staveb, Consult-Invest

### 225018 Project I (Master's Programme)

**Extent:** 2  
**Status:** Mandatory, 1st semester  
**Prerequisites:** Building Structures I, II, III, Statics of Buildings, Building Materials, CAD for Constructions, Building Typology  
**Assessment:** CC
Unit Syllabus: Theoretical and expert knowledge applied from all civil engineering studies in order to complete a technical design of a larger building for industrial or public amenities purposes. Students will pay attention to building structures, supporting system statics and technical installations, if any exist, according to his/her own choice. The task is carried out as a whole, partly with of assigned specialisation.

Textbooks: Matoušková D. a kol.: Skeletové konstrukční soustavy, ES VUT Brno
Kadlecová A., Matoušková D.: Ateliérová tvorba II., ES VUT Brno
Matoušková D. a kol.: Podhledy, podlahy, ES VUT Brno
Neufert: Navrhování staveb, Consult-Invest

225020 Project II (Master’s Programme)
Extent: 2
Status: Mandatory, 2nd semester
Prerequisites: Building Constructions I, II, III, Statics of Buildings, CAD for Construction, Building Materials, Concrete Structures
Assessment: CC

Unit Syllabus: Theoretical and expert knowledge applied from all civil engineering studies in order to a complete a technical design of a large building for industrial or public amenities purposes. Students will pay attention to building structures, supporting system statics and technical installations, if any exist, according to his/her own choice.

Textbooks: of all subjects

225040 Building Industry Management (Magister Programm)
Extent: 5
Status: Mandatory, 3rd semester
Prerequisites: Building Structures I, II, III, Building Industry Management
Assessment: Compound examination

Unit Syllabus: The subject will be a construction project in preparation and management, namely with design documentation for the purpose of execution, production and manufacturing, within the job, and material and supplies specification lists. Further on, construction planning, namely construction site layout and mobilisation, construction boundary demarcation, site access, etc. Finally construction equipment and its role in site preparation is to be dealt with.

Textbooks: J. Tillmann: Příprava, provádění a užívání staveb, PROSPEKTRUM Praha 1992
V. Hájek a kol.: Řízení stavební firmy, Český svaz stav. inž. Praha 1999
225041 Building Technical Services I
Extent: 5
Status: Mandatory, 7th semester
Prerequisites: Building Structures I, II, III, Building Typology, Building Materials
Assessment: Compound examination
Unit Syllabus: The lectures are focused on basic information about city, residential and building climates, conduit hydraulics, the increase of water pressure, water supply pipes, water conduits and fire mains. The lectures also deal with the calculation of sewers system and branch sewer, gas conduct and gas appliances. Students are acquainted with complex installation design.
Textbooks: Valášek J., Tomašovič P.: Zdravotnotechnické inštalácie, Bratislava, Alfa 1990
Šrytr P., Synáčková M. a kolektiv: Inženýrské sítě, Praha Vydavatelství ČVUT, 1992
ČSTZ Praha: Technická pravidla a doporučení GAS. Soubor předpisů TPG-TD., Praha, GAS s.r.o.1997

225047 Structure Design Software
Extent: 2
Status: Mandatory, 8th semester
Prerequisites: CAD for Constructions
Assessment: CC
Unit Syllabus: Main content of this subject is working with CAD systems on an user level. Choices of CAD software: Architectural Desktop, CADKON DT, Allplan, ArchiCAD. The utilisation knowledge in field of architectural creations and in designing drawings for civil engineering.
Textbooks: Aktuální manuál k softwaru dle dodavatele softwaru Current manual to software according to supplier of software.

225049 Principles of Civil Engineering and Architecture
Extent: 5
Status: Mandatory, 1st semester
Prerequisites: none
Assessment: CC
Unit Syllabus: The subjects deal with the development of civil engineering and architecture during history. This process is in pursuit of principles of construction development.
Textbooks: Koch, Wilfried
A handbook of European architectural styles/Wilfried Koch
ort/förlag: London:
W.Foulsham
cop.1980
159 s.:ill.

227052  Transportation and Hydraulic Structures
Extent: 5
Status: Mandatory, 6th semester
Prerequisites: Physics, Statics of Building Structures, Geology, Soil and Rock Mechanics
Assessment: Compound examination
Unit Syllabus: The content of the tutorial is students information about problems of transportation and hydraulic structures, with a special emphasis on technology itself, structure materials used design and monitoring. The main attention to the most spread types of transportation structures, is orientated. Namely roads, railways, subways, airports, funiculars and the whole number of dewatering structures, regulation of water flows, etc.
In tutorial process, the software programs, videos and DVD facilitation, are used.

Textbooks: Eurocod No. 7 – part No. 3 „The Geotechnical Constructions Design – The Field Tests (CNIS Prague, 2000),
M. Pollard: Roads and Tunnels (Building Marvels, London 2003),
Microstation InRoad and Inrail Design Software (VARS Brno, 2004),
CEN/TC 154 –Stones, CEN/TC 227 – Road Materials (Product Standards),

228201  Structural Statics
Extent: 6
Status: Mandatory, 2nd semester
Prerequisites: Mathematics I
Assessment: Compound examination

Textbooks:
J.L. Meriam, L.G.Kraige : Engineering mechanics-statics, Wiley and Sons, USA, 2003

228202 Statics of Building Structures I
Extent: 5
Status: Mandatory, 4th semester
Prerequisites: Elasticity and Plasticity
Assessment: Compound examination
Unit Syllabus: Computation of deformations of statically determined structures by unit force method. Statically indeterminate beams by the force method, continuous beams by the three-moment method, planar open and closed frames and planar truss girders by the force method. Force and deformation load of statically indeterminate structures by the force method.

Textbooks:
J.L. Meriam, L.G.Kraige : Engineering mechanics-statics, Wiley and Sons, USA

28203 Statics of Building Structures II
Extent: 4
Status: Mandatory, 5th semester
Prerequisites: Statics of Building Structures I
Assessment: Compound examination
Unit Syllabus: Statically indeterminate structures (loaded by forces and deformations) by the general deformation method and by the simplified deformation method. Analysis of 2D and 3D structures, subsoil models and structural dynamics.
Textbooks: J.L. Meriam, L.G.Kraige : Engineering mechanics-statics, Wiley and Sons, USA, 2003

228204 Elasticity and Plasticity I
Extent: 6
Status: Mandatory, 3rd semester
Prerequisites: Structural Statics
Assessment: Compound examination
Gere, Timoshenko: Mechanics of materials, PWS-Kent, Boston, 1990

228205 Computer Aided Structural Analysis
Extent: 2
Status: Mandatory, 5th semester
Prerequisites: Statics of Building Structures I
Assessment: CC
Unit Syllabus: Static analysis of 1D, 2D and 3D structures using the finite element method. Creating of computational models and analysis of results. Practical education in a computer laboratory. The ANSYS system is used. Students also gain required knowledge to use any other finite element software.
ANSYS Inc. - ANSYS Documentation

228206 Safety and Reliability of Building Structures
Extent: 5
Status: Mandatory, 8th semester
Prerequisites: Statics of Building Structures II, Computer Aided Structural Analysis
Assessment: Compound examination
Unit Syllabus: The subject allows students to understand a qualitatively new approach for structural reliability. The topic makes them familiar with a probabilistic approach for the safety, serviceability, and durability. The simulation methods serve as an effective tool for such analysis with respect to the basic knowledge from the Theory of reliability and computers.


228301 | Structural Dynamics | Master's Programme
---|---|---
Extent: 5
Status: Mandatory, 1st semester
Prerequisites: Statics of Building Structures II
Assessment: Compound examination
Unit Syllabus: Design of building structures from dynamic standpoints. Constructions exposed to influence of time variable load as wind, transport, or earthquake. Free and forced vibrations of systems with finite number of degrees of freedom and vibrations of systems with equalized masses, as are e.g. high buildings or bridges.

228302 | Finite Elemente Method | Master's Programme
---|---|---
Extent: 5
Status: Mandatory, 1st semester
Prerequisites: Statics of Building Structures II
Assessment: Compound examination
Unit Syllabus: Students gain wider knowledge of the theoretical background of the finite element method. Numerical analysis of complicated building structures in a computer laboratory. Students utilise the finite element method for static, dynamic, and thermal analysis of structures.
ANSYS Inc. - ANSYS Documentation
5.4 Departments

**DEPARTMENT OF BUILDING STRUCTURES – 221**

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| Secretary service: Lucie Kuchařová | ☎️/FAX 597 321 377 | lucie.kucharova@vsb.cz |
| Teachers: Prof. Ing. Vladimír Tomica, CSc. | ☎️ 597 321 310 | vladimir.tomica@vsb.cz |
| Doc. Ing. Josef Vičan, CSc. | ☎️ 597 321 335 | josef.vican@vsb.cz |
| Doc. Ing. Radim Čajka, CSc. | ☎️ 597 321 344 | radim.cajka@vsb.cz |
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| Ing. Miloš Rieger | ☎️ 597 321 349 | milos.rieger@vsb.cz |
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The Department of Building Structures is the guarantor in the Study program *Architecture and Civil Engineering* both in the bachelor and in the master degree together with the Department of Architecture and Civil Engineering. Lectures and seminars are focused on design of steel, concrete, masonry, composite and timber structures. Attention is paid to specific problems of the region, i.e. undermined areas and areas in danger of floods.

Research and scientific activities at the Department of Building Structures are specialized in the reliability of structures, fire design of structures, mathematical modelling of soil-structure interaction and fatigue.

**Teachers and Subjects**

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<th>Teachers and Subjects</th>
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<tbody>
<tr>
<td>Vladimír TOMICA</td>
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<td>Name</td>
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<tr>
<td>Josef VIČAN</td>
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<tr>
<td>Radim ČAJKA</td>
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<tr>
<td>Antonín LOKAJ</td>
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### DEPARTMENT OF URBAN PLANNING AND ENGINEERING – 222

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<th>Role</th>
<th>Name</th>
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<th>Email</th>
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<tbody>
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<td><a href="mailto:otakar.hasik@vsb.cz">otakar.hasik@vsb.cz</a></td>
</tr>
<tr>
<td></td>
<td>Doc. Ing. Otakar Hasík, DrSc.</td>
<td>597 321</td>
<td><a href="mailto:jiri.cernota@vsb.cz">jiri.cernota@vsb.cz</a></td>
</tr>
<tr>
<td></td>
<td>Ing. Jiří Černota</td>
<td>597 321</td>
<td><a href="mailto:jiri.kalvach@vsb.cz">jiri.kalvach@vsb.cz</a></td>
</tr>
<tr>
<td></td>
<td>Ing. Jiří Kalvach</td>
<td>597 321</td>
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<tr>
<td></td>
<td>Ing. František Kuda, CSc.</td>
<td>597 321</td>
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<td></td>
<td>Ing. arch. Jana Pletnická</td>
<td>597 321</td>
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<tr>
<td></td>
<td>Ing. Barbara Vojvodíková, Ph.D.</td>
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<td></td>
<td>Ing. Renata Zdařilová</td>
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<td>Ing. Jan Česelský</td>
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<td></td>
<td>Ing. Jana Drabinová</td>
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</tbody>
</table>
The Department is a guarantor of field of study in the master and bachelor degree: *Urban and Civil Engineering*. The field of study is focused on comprehensive knowledge in the area of theory of urban and rural construction, town design, regional planning, urban engineering and urban planning.

In the research area the main topic is regeneration or revitalization of brownfields. The other topic is focused on typology of housing and public utilities, including administration, healthcare, cultural and sports buildings.

### Teachers and Subjects

<table>
<thead>
<tr>
<th>Name</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jiří ČERNOTA</td>
<td>Municipal Engineering (Ms)</td>
</tr>
<tr>
<td>Jan ČESELSKÝ</td>
<td>Construction Cost Estimating and Pricing (Bc)</td>
</tr>
<tr>
<td>Jana DRABINOVÁ</td>
<td>Management and Economics in Civil Engineering (Bc)</td>
</tr>
<tr>
<td>Jana PLETNICKÁ</td>
<td>Territorial Planning (Bc)</td>
</tr>
<tr>
<td>Jakub ŠVRČEK</td>
<td>Urban Planning (Ms)</td>
</tr>
<tr>
<td></td>
<td>Regional Planning (Ms)</td>
</tr>
<tr>
<td>Barbara VOJVODÍKOVÁ</td>
<td>Legal Regulations in Building Industry (Bc)</td>
</tr>
<tr>
<td></td>
<td>Organization of Public Administration (Bc)</td>
</tr>
<tr>
<td></td>
<td>Brownfields Regeneration (Bc)</td>
</tr>
<tr>
<td></td>
<td>Effectiveness of Investment (Ms)</td>
</tr>
<tr>
<td>Renata ZDAŘILOVÁ</td>
<td>Typology of Housing and Public Amenity Buildings (Bc)</td>
</tr>
<tr>
<td></td>
<td>Typology of Industrial Buildings (Bc)</td>
</tr>
<tr>
<td></td>
<td>Typology of Buildings (Mg)</td>
</tr>
<tr>
<td>Mojmír KYSELKA</td>
<td>Urban Planning Bases</td>
</tr>
</tbody>
</table>

**DEPARTMENT OF BUILDING MATERIALS AND MINING ENGINEERING – 223**

<table>
<thead>
<tr>
<th>Head: Ing. Jiří Lukš, PhD.</th>
<th>597 321 958 <a href="mailto:jiri.luks@vsb.cz">jiri.luks@vsb.cz</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretary: Ing. Iveta Skotnicová, Ph.D.</td>
<td>597 321 <a href="mailto:iveta.skotnicova@vsb.cz">iveta.skotnicova@vsb.cz</a></td>
</tr>
</tbody>
</table>
The Department guarantees education in the study courses of **Building Materials and Diagnostics of Structions**. The courses is focused on:

- design and technology of classical and new materials production and their quality control,
- diagnostic of constructions,
- appraisal of heat-technical, acoustic and light-technical properties of constructions.

There is also a possibility to enhance and extend knowledge in the varieties of facultative subjects to follow an individual professional line of interest.

The education is provided in three educations level – bachelor, master and doctor degrees.

### Teachers and Subjects

<table>
<thead>
<tr>
<th>Teachers and Subjects</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iveta SKOTNICOVÁ</td>
<td>Building Environment (Bc)</td>
</tr>
</tbody>
</table>

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The Department of Geotechnics guaranties the training of bachelors, masters and doctors in geotechnical engineering. It provides compulsory courses in “Soil and Rock Mechanics” and “Foundation of Building Structures” and many others facultative geotechnical courses preparing students aimed to became experts in geotechnical engineering. The Department also carries out development in field of geotechnical engineering sciences and participates in several international research projects.
### Teachers and Subjects

<table>
<thead>
<tr>
<th>Teachers and Subjects</th>
<th>Foundation of Building Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hynek LAHUTA</td>
<td>Engineering</td>
</tr>
<tr>
<td>Robert KORINEK</td>
<td>Soil and Rock Mechanics</td>
</tr>
</tbody>
</table>

### DEPARTMENT OF ARCHITECTURE AND CIVIL ENGINEERING – 225

<table>
<thead>
<tr>
<th>Head: Doc. Ing. Alois Materna, CSc., MBA</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Secretary: Doc. Ing. Jaroslav Solař, Ph.D.</td>
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<tr>
<td>Secretary service: Pavla Šimelová</td>
<td>597 321 305 <a href="mailto:Pavla.simonova@vsb.cz">Pavla.simonova@vsb.cz</a></td>
</tr>
<tr>
<td>Teachers: Doc. Ing. Alois Materna, CSc., MBA</td>
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</tr>
<tr>
<td>Doc. Ing. Jaroslav Kuba, CSc.</td>
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</tr>
<tr>
<td>Doc. Ing. Darja Skulinová, Ph.D.</td>
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</tr>
<tr>
<td>Doc. Ing. Jaroslav Solař, Ph.D.</td>
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</tr>
<tr>
<td>Ing. Irena Beláková</td>
<td>597 321 365 <a href="mailto:irena.belakova@vsb.cz">irena.belakova@vsb.cz</a></td>
</tr>
<tr>
<td>Ing. Filip Čmiel</td>
<td>597 321 337 <a href="mailto:filip.cmiel@vsb.cz">filip.cmiel@vsb.cz</a></td>
</tr>
<tr>
<td>Ing. Marcela Halířová</td>
<td>597 321 359 <a href="mailto:marcela.halirova@vsb.cz">marcela.halirova@vsb.cz</a></td>
</tr>
<tr>
<td>Ing. Marie Hušková</td>
<td>597 321 329 <a href="mailto:marie.huskova@vsb.cz">marie.huskova@vsb.cz</a></td>
</tr>
<tr>
<td>Ing. Jan Mareček</td>
<td>597 321 309 <a href="mailto:jan.marecek@vsb.cz">jan.marecek@vsb.cz</a></td>
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<tr>
<td>Ing. Zdeněk Peřina</td>
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<tr>
<td>Ing. Martina Peříková, Ph.D.</td>
<td>597 321 351 <a href="mailto:martina.perinkova@vsb.cz">martina.perinkova@vsb.cz</a></td>
</tr>
<tr>
<td>Ing. arch. Aleš Student</td>
<td>597 321 323 <a href="mailto:ales.student@vsb.cz">ales.student@vsb.cz</a></td>
</tr>
</tbody>
</table>
The Department is responsible for education in the study programs Architecture and Buildings and Civil Engineering. The lectures given by the department cover building structures design and the design of residential, civic, industrial and agricultural buildings and structures, modern computational methods, including the use of information technology.

Further, the Department supervises the instruction in study modules, reconstruction and modernization of constructions, building and structural physics and building structures design.

Lectures, tutorials and projects are prepared for the bachelor's, master's and doctor's programmes.

Research is oriented on both theoretical and experimental fields of Building Engineering. The teaching and research activities of the Department revolve around structural analysis of the design of load-bearing systems and structures of multi-storey buildings and halls; structural and building physics (heat engineering, acoustics, lighting), non-bearing structures design, interaction of bearing and non-bearing subsystems, defects and reconstruction of buildings and structures, degradation processes in structures and construction materials, design of prefabricated systems and structures, fire protection, and health hazards in constructions.

### Teachers and Subjects

<table>
<thead>
<tr>
<th>Name</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darja SKULINOVÁ</td>
<td>Building Industry Management (Bc), (Ms)</td>
</tr>
<tr>
<td></td>
<td>Industrial Buildings (Bc)</td>
</tr>
<tr>
<td></td>
<td>Project I, II (Bc)</td>
</tr>
<tr>
<td>Ipek ERZY</td>
<td>Building Structures I, II, III (Bc)</td>
</tr>
<tr>
<td>Mojmír KYSELKA</td>
<td>Architecture and Urban Planning Bases (Bc)</td>
</tr>
<tr>
<td>Zdeněk PEŘINA</td>
<td>Structure Design Software (Bc)</td>
</tr>
<tr>
<td>Martina PEŘINKOVÁ</td>
<td>Fundamentals of Civil Engineering and Architecture (Bc)</td>
</tr>
</tbody>
</table>
The Department of Transport Constructions provides education in topics, orientated on the design of constructions, reconstructions, maintenance of roads, motorways, railways, city transport constructions and other supplementary accessories of these constructions.

The study tie together to knowledge of Mathematics, Physics, Geotechnics, Material Properties, Civil Engineering Mechanics and the other topics of Civil Engineering. Very wide application of graduates are in branches like design, preparation and realisation of objects (communications) investors, surveyor’s officers, in the whole branch of transport constructions. Up – to – days and in future in building up of new motorways and high speed railways.
The department provides education in subjects belonging to the theoretical basis of all study branches of the Faculty of Civil Engineering in Bachelor and Master Study Programs. The department guaranties courses in structural mechanics, reliability of structures and numerical methods in mechanics and also supervises the Doctoral Study Programs in the study branch Theory of Structures and Mining and Underground Engineering.

The research of the department is focused on the analysis of structures carried out by means of modern numerical and probabilistic methods.

### Teachers and Subjects

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavel MAREK</td>
<td>Structural Statics</td>
</tr>
<tr>
<td></td>
<td>Elasticity and Plasticity (Bc)</td>
</tr>
<tr>
<td></td>
<td>Safety and Reliability of Building Structures (Bc)</td>
</tr>
<tr>
<td>Alois MATERNA</td>
<td>Finite Element Method (Ms)</td>
</tr>
<tr>
<td></td>
<td>Computer Aided Structural Analysis</td>
</tr>
</tbody>
</table>
6 Czech Republic

6.1 Basic Facts:

**Area:** 78,864 sq. km  
**Population:** 10,3 mil. (94% Czech, 4% Slovak and Polish and German minorities)  
**Capital:** Prague  
**Currency:** Czech crown (CZK) (1 EUR = 34 CZK)  
**Official language:** Czech  
**Political system:** A Parliamentary Democracy  
**President:** Václav Klaus

The Czech Republic is a formation of three historical lands of the imperial and royal Crown – Bohemia, Moravia and Silesia. At the head of the Republic there is a president who is elected for a term of five years by the Parliament. Parliament consists of two chambers – the Chamber of Deputies and the Senate. The supreme body of executive power is the Cabinet and its Prime Minister.

6.2 History

Around the 4th century B.C. the present Czech Republic was populated by Celts, the Celtic Boii tribe gave the country its name – Bohemia, from the 5th to 6th century Czech tribes – Slavs came, in the second half of the 9th century Christian missionaries arrived, from 9th century to 1306 a gradual strengthening of the Czech state during the reign of the Přemyslid dynasty went on, 1355 Charles IV, Roman Emperor and King of Bohemia came to power, 1348 Charles University of Prague was founded, in 1526 the Habsburg dynasty succeeded to the throne of Bohemia – the formation of a multi-national empire began, 1918 proclamation of Czechoslovakia independence, 1939-1945 – German occupation, February 1948 – Communist take-over, 1968 „Prague Spring“, in August 1968 the Soviet-led armed invasion of Czechoslovakia, 1977 „Charter 77“, in 1989 „Velvet Revolution“, fall of the communist regime, beginning of democratic changes in the society, in 1993 the dissolution of Czechoslovakia, the Czech Republic and Slovak Republic were founded.

6.3 Climate

The Czech Republic lies in the temperate climate zone of Europe, which makes for pleasantly mild summers and winters with only moderate amounts of precipitation. Average temperature in summer is +20 degrees C and in winter -6 degrees C.
6.4 Geography
The Czech Republic is situated in Central Europe. It is a land-locked country protected by mountain ranges on all sides and sharing borders with Germany in the west, Poland in the north, Austria in the south and Slovakia in the east.

Ostrava is the third biggest city in the Czech Republic, 4 hours away from Prague and Vienna by rail and 1 hour from Prague by plane. Ostrava is surrounded by the Beskydy and the Jeseníky mountains, the terrain of which enable one to do all kinds of winter and summer sports including hiking, skiing and walking tours. The history of Ostrava dates back to the 13th century, when it was mentioned for the first time in writing as a tributary town in the testament of the Bishop of Olomouc. Discovering coal in Ostrava, establishing the iron works and connecting the city to the Northern Ferdinand railway resulted in the extensive industrialization of Ostrava and surroundings. After the establishment of Czechoslovakia there was another expansion of industry and cultural life. Today, Ostrava with its 335 000 inhabitants is strengthening its metropolitan position as the administrative, trade, industrial and social centre of the region, in spite of declining traditional industries which need the complexly transform the region.

Supplement – http://fast.vsb.cz/supplement

Student Application Form
Transcript of Records
Learning Agreement
Report of the Results of Study
Housing Registration Form
Situation Map of the Faculty of Civil Engineering