

## 1 SURVEYING AND GEOINFORMATICS ENGINEERING PROGRAMME

### **Advanced Mathematics in Geodesy and Surveying**

*Korszerű matematikai módszerek a geodéziában*

Code: BMEEOAFDT71

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Tóth Gyula

Further lecturers: -

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: basic subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall semester

### **Advanced Physical Geodesy**

*Fizikai és elméleti geodézia*

Code: BMEEOAFDT72

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Völgyesi Lajos

Further lecturers: Tóth Gyula

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: basic subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester

### **Geoscientific Foundations of Geodesy**

*Geodézia földtudományi alapjai*

Code: BMEEOAFDT81

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Völgyesi Lajos

Further lecturers: -

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall semester (only in odd calendar years)

### **Space Geodesy**

*Kozmikus geodézia*

Code: **BMEEOAFDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Ádám József

Further lecturers: Tóth Gyula

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester (only in odd calendar years)

### **Integrated Sensor Systems in Geodesy and Surveying**

*Integrált geodéziai mérőrendszerek*

Code: **BMEEOAFDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Takács Bence

Further lecturers: Siki Zoltán

Rózsa Szabolcs

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester

### **Geoscientific and Navigation Applications of GNSS and InSAR**

*GNSS és műholdradar rendszerek földtudományi és navigációs alkalmazásai*

Code: **BMEEOAFDT84**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Rózsa Szabolcs

Further lecturers: Takács Bence

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall semester

### **Spatial Temporal Databases**

*Tér-idő adatmodellek és adatbázisok*

Code: **BMEEOAFDT85**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Siki Zoltán

Further lecturers: -

Department managing the subject: Geodesy and Surveying (geod.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester (only in even calendar years)

### **Image processing**

*Képfeldolgozás*

Code: **BMEEOFTDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Barsi Árpád

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: basic subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall and spring semester

### **Geoinformatical systems**

*Geoinformációs rendszerek*

Code: **BMEEOFTDT72**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Szabó György

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: basic subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall and spring semester

### **Laser scanning**

*Lézerszkennelés*

Code: **BMEEOFTDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Lovas Tamás

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester

### **Satellite remote sensing**

*Műholdas távérzékelés*

Code: **BMEEOFTDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Kugler Zsófia

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester

### **Digital surface modeling**

*Digitális felületmodellezés*

Code: **BMEEOFTDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Juhász Attila

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: spring semester

### **Close-range photogrammetry**

*Közelfotogrammetria*

Code: **BMEEOFTDT84**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Molnár Bence

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall semester

### **Artificial intelligence**

*Mesterséges intelligencia*

Code: **BMEEOFTDT85**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Paláncz Béla

Further lecturers: -

Department managing the subject: Photogrammetry and Geoinformatics (fmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Surveying and Geoinformatics Engineering PhD programme

Semester: fall semester (only in odd calendar years)

## **2 STRUCTURAL CIVIL ENGINEERING PROGRAMME**

### **Force transfer in concrete**

*Erőátadódás betonban*

Code: **BMEEOEMDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Balázs L. György

Further lecturers: -

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: spring semester (only in even calendar years)

### **Materials of environmentally compatible construction**

*Környezetkímélő építés anyagai*

Code: **BMEEOEMDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Fenyvesi Olivér

Further lecturers: Nemes Rita

Szalay Zsuzsa

Józsa Zsuzsanna

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester (only in odd calendar years)

### **Durability of construction materials**

*Építőanyagok tartóssága*

Code: **BMEEOEMDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Balázs L. György

Further lecturers: Kopecskó Katalin

Salem G. Nehme

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Relationship between structure and behaviour of concrete**

*A beton struktúrájának és tulajdonságainak összefüggése*

Code: **BMEEOEMDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Salem G. Nehme

Further lecturers: Kopecskó Katalin

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester (only in even calendar years)

### **Advanced construction materials**

#### *Különleges építőanyagok*

Code: **BMEEOEMDT84**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Balázs L. György

Further lecturers: Salem G. Nehme

Erdélyi Attila

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Rheological and temperature dependent material properties**

#### *Reológiai és hőmérsékletfüggő anyagtulajdonságok*

Code: **BMEEOEMDT85**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Lublós Éva

Further lecturers: Balázs L. György

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall and spring semester

## **Expertise in building design**

### *Épületszerkezeti konstruktóri ismeretek*

Code: **BMEEOEMDT86**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Stocker György

Further lecturers: Halász György

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall and spring semester

## **Building energy modelling (BEM)**

### *Épületenergetikai modellezés (BEM)*

Code: **BMEEOEMDT87**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Szalay Zsuzsa

Further lecturers: Medgyasszay Péter

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall semester

## **Design Theories and Concepts**

### *Tervezéselmélet*

Code: **BMEEOEMDT88**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Patonai Dénes

Further lecturers: Lipták-Váradi Júlia

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall semester



### **Technical value analysis**

*Műszaki értékelemzés*

Code: **BMEEOEMDT89**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Dudás Annamária

Further lecturers: Horn Valéria

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester (only in odd calendar years)

### **Alkali activated materials in civil engineering**

*Alkáli aktivált anyagok építőmérnöki alkalmazásai*

Code: **BMEEOEMDTV1**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Kopecskó Katalin

Further lecturers: -

Department managing the subject: Department of Construction Materials and Technologies (em.bme.hu)

Role of the subject in the academic plan: elective subject in the Structural Civil Engineering PhD programme

Semester: spring semester (only in even calendar years)

### **Rock mechanical modelling**

*Kőzetmechanikai modellezés*

Code: **BMEEOGMDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Vásárhelyi Balázs

Further lecturers: Görög Péter

Department managing the subject: Department of Engineering Geology and Geotechnics (gmt.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Special geotechnical tests**

*Speciális geotechnikai vizsgálatok*

Code: **BMEEOGMDT72**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Móczár Balázs

Further lecturers: Szendefy János

Department managing the subject: Department of Engineering Geology and Geotechnics (gmt.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Hydrogeology of subsurface water**

*Felszínalatti vizek teleptana*

Code: **BMEEOGMDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Görög Péter

Further lecturers: Hajnal Géza

Department managing the subject: Department of Engineering Geology and Geotechnics (gmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Stone in structures**

*Kőzetek szerkezeti alkalmazása*

Code: **BMEEOGMDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Török Ákos

Further lecturers: Görög Péter

Department managing the subject: Department of Engineering Geology and Geotechnics (gmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Geotechnical finite element analysis**

*Geotechnikai véges elemes analízis*

Code: **BMEEOGMDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Mahler András

Further lecturers: -

Department managing the subject: Department of Engineering Geology and Geotechnics (gmt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Engineering geological risk assessment**

*Mérnökgeológiai kockázatelemzés*

Code: **BMEEOGMDTV1**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Török Ákos

Further lecturers: Rozgonyi-Boissinot Nikolett

Department managing the subject: Department of Engineering Geology and Geotechnics (gmt.bme.hu)

Role of the subject in the academic plan: elective subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Fragility assessment**

*Sérülékenységanalízis*

Code: **BMEEOHSDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Vigh László Gergely

Further lecturers: -

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: fall and spring semester

### **Reinforced concrete modelling**

*A vasbeton modellezése*

Code: **BMEEOHSDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Sajtos István

Further lecturers: -

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Mechanics of composites**

*Kompozitok mechanikája*

Code: **BMEEOHSDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Kollár László P.

Further lecturers: -

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Shell structures**

*Héjszerkezetek*

Code: **BMEEOHSDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Hegedűs István

Further lecturers: -

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall and spring semester

### **Plates and sandwich structures**

*Lemezok és szendvicsszerkezetek*

Code: **BMEEOHS DT84**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Hegedűs István

Further lecturers: -

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall and spring semester

### **Computational analysis and design**

*Numerikus analízis és méretezés*

Code: **BMEEOHS DT85**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Dunai László

Further lecturers: Kövesdi Balázs

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Seismic design principles**

*Szeizmikus tervezési elvek*

Code: **BMEEOHS DT86**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Kollár László P.

Further lecturers: Dunai László

Department managing the subject: Department of Structural Engineering (hsz.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Functional Analysis**

*Funkcionálanalízis*

Code: **BMEEOTMDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Kovács Flórián

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Material Models in Mechanics**

*Mechanikai anyagmodellek*

Code: **BMEEOTMDT72**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Bojtár Imre

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Numerical Methods**

*Numerikus módszerek*

Code: **BMEEOTMDT73**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Németh Róbert

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: basic subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Mechanics of Masonry Structures**

*Falazott szerkezetek mechanikája*

Code: **BMEEOTMDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Bagi Katalin

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: fall semester

### **Thin Walled Steel Structures**

*Vékonyfalú acélszerkezetek*

Code: **BMEEOTMDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Ádány Sándor

Further lecturers: Dunai László

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester (only in odd calendar years)

### **Structural Optimization**

*Szerkezetek optimálása*

Code: **BMEEOTMDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Lógó János

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Structural Civil Engineering PhD programme

Semester: spring semester

### **Cable and Tensile Membrane Structures**

*Kábel- és ponyvaszerkezetek*

Code: **BMEEOTMDTV1**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Hincz Krisztián

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: elective subject in the Structural Civil Engineering PhD programme

Semester: fall semester (only in odd calendar years)

### **Fracture Mechanics**

*Törésmechanika*

Code: **BMEEOTMDTV2**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Bojtár Imre

Further lecturers: -

Department managing the subject: Department of Structural Mechanics (me.bme.hu)

Role of the subject in the academic plan: elective subject in the Structural Civil Engineering PhD programme

Semester: spring semester

## **3 INFRASTRUCTURE CIVIL ENGINEERING PROGRAMME**

### **Pavement analysis and design**

*Útpályaszerkezet diagnosztika és méretezés*

Code: **BMEEOUVDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Tóth Csaba

Further lecturers: -



Department managing the subject: Department of Highway and Railway Engineering (uvt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

### **Railway Track Geometry**

*Vasúti pályageometria*

Code: **BMEEOUVDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Liegner Nándor

Further lecturers: -

Department managing the subject: Department of Highway and Railway Engineering (uvt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

### **Modelling of railway tracks**

*Vasúti pályaszerkezetek modellezése*

Code: **BMEEOUVDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Liegner Nándor

Further lecturers: Bocz Péter

Department managing the subject: Department of Highway and Railway Engineering (uvt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

### **Ecology**

*Ökológia*

Code: **BMEEOVKDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Szilágyi Ferenc

Further lecturers: -

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkt.bme.hu)

Role of the subject in the academic plan: basic subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

### **Aquatic chemistry**

*Víz kémia*

Code: **BMEEOVKDT72**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Licskó István

Further lecturers: -

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkt.bme.hu)

Role of the subject in the academic plan: basic subject in the Infrastructure Civil Engineering PhD programme

Semester: fall and spring semester

### **Water quality in drinking water networks**

*Ivóvízellátó hálózatok és vízminőségi problémák*

Code: **BMEEOVKDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Fülöp Roland

Further lecturers: -

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

### **Water quality classification**

*Vízminősítés*

Code: **BMEEOVKDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Licskó István

Further lecturers: Szilágyi Ferenc

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

### **Natural wastewater treatment**

*Természet-közeli szennyvíztisztítás*

Code: **BMEEOVKDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Szilágyi Ferenc

Further lecturers: -

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

### **Drinking water treatment technologies and health aspects of water supply**

*Az ivóvíztisztítás technológiai és az ivóvízellátás közegészségügyi vonatkozásai*

Code: **BMEEOVKDT84**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Laky Dóra

Further lecturers: -

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

### **State of the art wastewater treatment**

*Korszerű szennyvíztisztítás*

Code: **BMEEOVKDT85**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Patziger Miklós

Further lecturers: -

Department managing the subject: Department of Sanitary and Environmental Engineering (vkkkt.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

### **Theoretical hydrodynamics**

*Elméleti hidrodinamika*

Code: **BMEEOVVDT71**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Szabó K. Gábor

Further lecturers: -

Department managing the subject: Department of Hydraulic and Water Resources Engineering (vit.bme.hu)

Role of the subject in the academic plan: basic subject in the Infrastructure Civil Engineering PhD programme

Semester: fall and spring semester

### **Computational hydraulics**

*Numerikus hidraulika*

Code: **BMEEOVVDT81**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Krámer Tamás

Further lecturers: -

Department managing the subject: Department of Hydraulic and Water Resources Engineering (vit.bme.hu)

Role of the subject in the academic plan: basic subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

## **Seepage and groundwater hydraulics**

### *Szivárgás- és talajvízhidraulika*

Code: **BMEEOVVDT72**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Csoma Rózsa

Further lecturers: -

Department managing the subject: Department of Hydraulic and Water Resources Engineering (vit.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester (only in even calendar years)

## **Hydrological modelling and forecasting**

### *Hidrológiai modellezés és előrejelzés*

Code: **BMEEOVVDT82**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Szilágyi József

Further lecturers: Honti Márk

Department managing the subject: Department of Hydraulic and Water Resources Engineering (vit.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

## **Sediment transport modelling**

### *Hordaléktranszport modellezése*

Code: **BMEEOVVDT83**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Baranya Sándor

Further lecturers: -

Department managing the subject: Department of Hydraulic and Water Resources Engineering (vit.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

## **Limnology**

### *Limnológia*

Code: **BMEEOVVDT84**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Józsa János

Further lecturers: Istvánovics Vera

Krámer Tamás

Department managing the subject: Department of Hydraulic and Water Resources Engineering (vit.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

## **Transportation Economics 1**

### *Közlekedésgazdaságtan I.*

Code: **BMEKOKGD006**

Lectures: 0 hours per week (theory)

Performance evaluation: exam

Credits: 0

Course coordinator and main lecturer: Tánczos Lászlóné

Further lecturers: -

Department managing the subject: Department of Transport Technology and Economics (kukg.bme.hu)

Role of the subject in the academic plan: basic subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

## **Transport Technology**

### *Közlekedési technológia*

Code: **BMEKOKUD003**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Dr. Mándoki Péter

Further lecturers: -

Department managing the subject: Department of Transport Technology and Economics (kukg.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester

### **Traffic Technology (Models)**

*Közlekedési hálózattervezés (modellek)*

Code: **BMEKOKUD008**

Lectures: 2 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Dr. Juhász János

Further lecturers: Dr. Tóth János

Department managing the subject: Department of Transport Technology and Economics (kukg.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: fall semester

### **Passenger Transport Systems**

*Személyközlekedési rendszerek*

Code: **BMEKOKUD021**

Lectures: 4 hours per week (theory)

Performance evaluation: exam

Credits: 3

Course coordinator and main lecturer: Dr. Csiszár Csaba

Further lecturers: Csonka Bálint, Földes Dávid

Department managing the subject: Department of Transport Technology and Economics (kukg.bme.hu)

Role of the subject in the academic plan: specialisation subject in the Infrastructure Civil Engineering PhD programme

Semester: spring semester