Faculty introduction to

MSc students

Faculty of Electrical Engineering and Informatics
Budapest University of Technology and Economics

Dr. Eszter Udvary
associate professor
BSc and MSc English program director
Highlights

1. Introduction to the faculty
2. Degree programs
3. Q&A
<table>
<thead>
<tr>
<th>Faculty of the BME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Civil Engineering (1782)</td>
</tr>
<tr>
<td>Faculty of Mechanical Engineering (1871)</td>
</tr>
<tr>
<td>Faculty of Architecture (1873)</td>
</tr>
<tr>
<td>Faculty of Chemical Engineering (1873)</td>
</tr>
<tr>
<td>Faculty of Electrical Engineering and Informatics (1949)</td>
</tr>
<tr>
<td>Faculty of Transportation Engineering (1951)</td>
</tr>
<tr>
<td>Faculty of Natural Sciences (1987)</td>
</tr>
<tr>
<td>Faculty of Economic and Social Sciences (1998)</td>
</tr>
</tbody>
</table>
Departments at the faculty

- Department of Automation and Applied Informatics
- Department of Broadband Infocommunications and Electromagnetic Theory
- Department of Computer Science and Information Theory
- Department of Control Engineering and Information Technology
- Department of Electric Power Engineering
- Department of Electron Devices
- Department of Electronics Technology
- Department of Measurement and Information Systems
- Department of Networked Systems and Services
- Department of Telecommunications and Media Informatics
Faculty buildings
Faculty buildings: I
Faculty buildings: Q
Faculty buildings: V1
Degree programs in English

- Electrical Engineering (BSc) – 7 semesters
- Computer Engineering (BSc) – 7 semesters
- Electrical Engineering (MSc) – 4 semesters
- Computer Engineering (MSc) – 4 semesters
- Electrical Engineering (PhD) – 8 semesters
- Computer Engineering (PhD) – 8 semesters
Electrical Engineering (MSc)

- 4 semesters, 120 credits (ECTS)
- Main Specializations: Electric Power Systems, Embedded Systems, Multimedia Systems and Services
- Secondary Specializations: Optical Communication, Smart City, Smart Systems Integration
• 4 semesters, 120 credits (ECTS)
• Main Specializations: Applied Informatics, Internet Architectures and Services
• Secondary Specializations: Smart City, Cloud And Parallel Systems
European Credit Transfer and Accumulation System (ECTS)

- It helps students to move between countries and to have their academic qualifications and study periods abroad recognised.
- It enhances the flexibility of study programmes for students.
- ECTS credits represent learning based on defined learning outcomes and their associated workload.
- 1 credit ≈ 30 workhours.
Workload

- 1 semester = 20 weeks
  - 1 week registration period
  - 14 weeks study period
  - 1 week recap period
  - 4 weeks exam period
- 900 workhours / semester
  - 30 credits / semester
  - 30 workhours / credits
- 45 workhours / week (5 days)
  => 9 hours / day => full time study
- 25-30 contact hours / week
Subjects

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>Mid-term Assessments</th>
<th>End of the study period</th>
<th>Exam period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam</td>
<td>Mid-semester test</td>
<td>Signature</td>
<td>Exam</td>
</tr>
<tr>
<td></td>
<td>Mid-semester exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Homework</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-semester mark</td>
<td>Mid-semester test</td>
<td>Grade (based on the mid-semester results)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Mid-semester exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Homework</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• Subjects – with few exceptions – are only announced once a year, either in the spring or in the fall semester!
• Please handle the subject based on neptun ID (NOT title)
## Courses

<table>
<thead>
<tr>
<th>type</th>
<th>Attendance requirement</th>
<th>note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Max. 70%</td>
<td>If it is in the subject description</td>
</tr>
<tr>
<td>Practice</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td>100%</td>
<td>Attendance is compulsory</td>
</tr>
<tr>
<td>exam</td>
<td>-</td>
<td>a course without contact hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- comprehensive exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If you have signature, but you did not get grade =&gt; you have to re</td>
</tr>
<tr>
<td></td>
<td></td>
<td>peate the examination in the next exam period</td>
</tr>
</tbody>
</table>

BME expects students to attend the lectures
Contacts

- For issues related to the administration of your studies you always have to turn Ms. Margit Nagy (location: building R, ground floor; phone: +36-1-463-1111 / ext. 4609; e-mail: nagy.margit@kth.bme.hu; office hours from 3rd September: Mon-Thur 12:00-15:30, Fri 8:30-12:00)

- For issues related to your studies, scholarship, and personal life, you should turn to Ms. Nóra Demeter in the first place (location: building Q, room No. BF05 (ground floor); phone: +36-1-463-1608; e-mail: demeter.nora@vik-dh.bme.hu; office hours: Mon, Wed, Fri 11:00-15:00)

- The program director of BSc and MSc studies is Dr. Eszter Udvary (location: Building V1, Room No: 214, e-mail: udvary@hvt.bme.hu, official hours: Wednesday 12.30 – 14.00)
Basic rule of administration

It is strictly forbidden to bypass the chain of hierarchy detailed above and to directly communicate to the rector/dean or any other university personnel without notifying the persons listed above. The violation of this rule will entail disciplinary measures !!!
When you contact anyone...

• Please explain
  – Your name and your Neptun ID
  – Your program (BSc/MSc/PhD, Electrical Engineering/Computer Engineering)
  – Your semester
  – Details of your problem
    • Who, what subject, when, why, what did happen...
  – Print screen (if you have problem with Neptun or other electronic system)
On-line study system in English

- you must use the electronic study system NEPTUN to handle all of your administration
  (https://frame.neptun.bme.hu/hallgatoi/login.aspx)
- All information can be found at the website vik.bme.hu/en
DEAN’S MESSAGE

The Faculty of Electrical Engineering and Informatics (VIK) of Budapest University of Technology and Economics (BME) carries on the traditions of the above 230 year old University. The proof thereof is the recognition of our degrees all around the world as well as the involvement and appreciation of our professors and researchers in the international scientific scene and organisations.

Almost all multinational electronics and IT corporations well-known in Asia have established R&D laboratories and centres attached to various departments of the faculty – Ericsson, Morgan Stanley, Nokia, Siemens, Samsung, Huawei, HP, IBM, just to name a few – where students can get hands-on information on the expectations of the partner companies.

The 2001 January issue of Nature published an article with the title "The 20th century was created in Budapest".

It shows that Budapest irrevocably became part of history that determined the advancement of natural sciences in the last century. Many of the illustrious scientists either studied or taught at the University.

This constitutes such a responsibility for current education that – inter alia – resulted in a prominent place in the Webometrics ranking of universities.

Ancient Romans had a pertinent term “genius loci”, meaning the spirit of the place.

Join us to create the 21st century here, in the middle of Europe, Hungary, Budapest, a liveable and safe city with a colourful multicultural spirit, spicy dishes and Asian roots still retained in music providing an academic student experience and community that endures and are remembered no matter the graduates of the University pursue their
For Current Students
M.S.C. Programs (Current)

Electrical Engineering

- Program description
- Start in the spring semester (degree program roadmap - starts: spring)
- Start in the fall semester (degree program roadmap - starts: fall)

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Master of Science Degree Program
Electrical Engineering Curriculum

Preliminary Course Schedule

According to Faculty regulations:

- The subject datasheet of some specialization subjects may include preliminary subject prerequisites.
  (Especially in the case of laboratories that are followed by and based on the knowledge of specialization subjects.)
- Project Laboratory 1., Project Laboratory 2., Diploma Thesis Design 1., Diploma Thesis Design 2.
  - Only MSc students of the given program can be admitted
  - The subjects can only be taken one after the other having completed the credits of the previous subject
- The prerequisite of the admission of Diploma Thesis Design 2
  - Completing 84 credits according to the study plan
  - Completing the following subjects
    - 2 Advanced mathematic subjects (according to the main specialization of the student)
    - One of the Common Subjects
      (Communication theory BMEVIHVMA07 or Measurement theory BMEVIMIMA17 or Alternating current systems BMVIVEMA13)
    - Natural Science subject
      (Electromagnetic Fields BMEVIHVMA08 or Photonics Devices BMEVIETMA06 or Electrical Insulations and Discharges BMEVIVEMA14)
    - Diploma Thesis Design 1. subject (BMEVI**MT02)
- Further prerequisites may be included in the “Regulations of BME VIK MSc Project Work, final examination and certificate”.

Specialization, changing specialization

Students are requested to hand in their application for specialization (the order of their main and secondary specialization) before admittance, during their entrance exam.
Students may submit a request in Neptun Study Administration System in order to change their specialization within the first semester of specialization. In case the request is accepted the student is transferred to the other specialization in the next semester (provided that the specialization starts in the given semester).

Mandatory human and economic science elective subjects
M.Sc. Programs (Current)

Electrical Engineering

- Program description
- Start in the spring semester (degree program roadmap - starts: spring)
- Start in the fall semester (degree program roadmap - starts: fall)
• Special subjects
  – Advanced mathematics 1.
    • BMETE90MX55 Stochastics
  – Natural science
    • BMEVIETMA06 Photonics Devices or
    • BMEVIVEMA14 Electrical Insulations and Discharges
  – Human and Economic science electives
  4 credits altogether
  – Specializations => Project laboratory 1
  – Free elective courses
Human & Economics Science Electives
## Human & Economics Science Electives

**Faculty of Economic and Social Sciences**

### IMPORTANT NOTES

If for one subject you can find several different types (lecture, practice, laboratory) of courses then please choose one and only one course from each type in order to be able to perform the subject's requirements successfully. Civil Engineering courses are on the website separately. Courses chosen from the offer of Faculty of Civil Engineering will be checked and arranged individually by the departmental coordinator.

<table>
<thead>
<tr>
<th>Subject code</th>
<th>Subject name</th>
<th>Requirement</th>
<th>ECTS credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMEGT20A001</td>
<td>Management and Business Economics</td>
<td>Mid-semester mark</td>
<td>4</td>
</tr>
</tbody>
</table>

### Course type  
- Lecture

<table>
<thead>
<tr>
<th>Course type</th>
<th>Course code</th>
<th>Course language</th>
<th>Timetable information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>ER</td>
<td>English</td>
<td>MON: 08:15-10:00(KF81); WED: 14:15-16:00(KF88);</td>
</tr>
</tbody>
</table>

The course introduces the essentials of management as they apply within the contemporary work environment and gives a conceptual understanding of the role of management in the decision making process. Particular attention is paid to management theories: principles of management, marketing management, quality management, production and project management. For problem formulation, both the managerial interpretation and the mathematical techniques are applied. Budapest University of Technology and Economics Faculty of Economic and Social Sciences Course Syllabus and Requirements Management and Business Economics 2. Course code Semester Hours per week (Theory/Practice) ECTS credits Language of Instruction Level (BSc/BA/MSc/MA) BMEGT20A001 fall/spring 4/0 4 Hungarian BSc/BA 3. Course supervisor (name, title, department): János Kövesi, dr. Habil, Professor, Department of Management and Business Economics 4. Lecturers: Name: Position: Department/Institute/availability (Room, e-mail address): Szilvia Bíró-Szigeti, PhD Associate Professor Dept. of Management and Business Economics, QB305, szigetisz@mvtt.bme.hu János Kövesi Professor Dept. of Management and Business Economics, QA315, kovesi@mvtt.bme.hu Noémi Kalló, PhD Associate Professor Dept. of Management and Business Economics, QA308, kallo@mvtt.bme.hu Tibor Szabó, PhD Assistant Professor Dept. of Management and Business Economics, QA317, tiborszabo@mvtt.bme.hu 5. Preliminary knowledge required: Basic concept of companies and their operation. 6. Academic prerequisites: 7. Objective and description of the course: The course introduces the...
Computer Engineering

BME Faculty of Electrical Engineering and Informatics

<table>
<thead>
<tr>
<th>Special subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specializations  =&gt; Project laboratory 1</td>
</tr>
<tr>
<td>Free elective courses</td>
</tr>
</tbody>
</table>

BME Faculty of Electrical Engineering and Informatics
MSC - Specializations

- All students are already directed to main and secondary specializations
  - Preferences (during entrance test)
  - Entrance test result

- Changing specialization:
  - within the first enrolled semester
  - Submit the E999 request in the Neptun system
  - Current specialization, requested specialization, justification (what is the reason of your request)
Project laboratory 1

- related to the main or secondary specialization
- the student carry out individual project work under the supervision of a member of a department of the faculty
- The student is expected to regularly meet and report his/her progress to the supervisor during the semester.
- The work includes the application of theoretical knowledge to specific problems, the individual and creative ways of problem solving and the precise, systematic and thorough documentation of the development process and the results of the verification and testing.
Project laboratory 1
# Project Laboratory Topics

<table>
<thead>
<tr>
<th>Supervisor</th>
<th>Email Address and Office</th>
<th>Topic</th>
<th>Description and Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ákos Nagy</td>
<td><a href="mailto:nagy.akos@aut.bme.hu">nagy.akos@aut.bme.hu</a></td>
<td>Movelt motion planning library in robotics</td>
<td>Movelt1 is a ROS-based open-source software library for mobile manipulation (ROS: Robot Operating System). It provides a platform for developing manipulation, 3D perception, kinematics, control and navigation algorithms. Movelt1 has been used on over 65 robots, including robotic arms, wheeled robots and legged robots. The aim of this student project is to examine the capabilities of the library, especially in geometrical path planning and in time parameterization. The students have to create a ROS-based demonstration framework, which can show the capabilities of Movelt1.</td>
</tr>
<tr>
<td>Gábor Cservási</td>
<td><a href="mailto:Cservasi.Gabor@aut.bme.hu">Cservasi.Gabor@aut.bme.hu</a></td>
<td>HTML5 Based Graphical Interface for Path Planning and Robotic Development</td>
<td>The task is to design and implement new features for an existing GUI based on a ROS system. A Graphical User Interface is used in our department for robotic research and development. It is used for path planning purposes, but it could be used for real time tracking and profiling. Our goal is to create a general tool in order to ease robot development.</td>
</tr>
<tr>
<td>Viktor Kovacs</td>
<td><a href="mailto:Kovacs.Viktor@aut.bme.hu">Kovacs.Viktor@aut.bme.hu</a></td>
<td>Marker based positioning by image processing</td>
<td>The task is to develop an algorithm that is able to detect polygon-like shapes in camera images. These detected polygons (quads) and the reference ones are then used to estimate the 3D viewpoint (position, orientation) of the camera. Several approaches can be applied to solve the problem (line fitting, thinning, corner detection, Hough-transform, contours etc.). Also several methods can be selected and compared. For viewpoint estimation the Robust planar pose algorithm is suggested. Platform: C# + OpenCV (openallegro).</td>
</tr>
</tbody>
</table>
Project laboratory 1

- Process
  - Check the available topics
  - Select topics
  - Check the requirements of the topic
  - Contact the relevant supervisor (email)
  - Meet with the supervisor
  - Discuss any open questions
  - Agree with the supervisor (you chose the topic and he/she accept you)
  - Do not forget register for the Project lab course
  - the Neptun ID of the course depends on the department of your supervisor

- You could have several discussions in parallel
  - If you chosen a topic and the supervisor has agreed to receive you, please inform the other contacted supervisors about your decision

- Select your topic, asap!!!!
Free Elective Courses
## Free Elective Courses

<table>
<thead>
<tr>
<th>Title</th>
<th>credits</th>
<th>Subject description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Network Security</td>
<td>4</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VITMAV">https://portal.vik.bme.hu/kepzes/targyak/VITMAV</a></td>
</tr>
<tr>
<td>Network Planning</td>
<td>2</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV">https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV</a></td>
</tr>
<tr>
<td>Administrating Computer Networks I.</td>
<td>4</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV">https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV</a></td>
</tr>
<tr>
<td>Administrating Computer Networks II.</td>
<td>4</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV">https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV</a></td>
</tr>
<tr>
<td>Introduction to Quantum Computing and Communi</td>
<td>2</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV">https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV</a></td>
</tr>
<tr>
<td>Privacy-Preserving Technologies</td>
<td>2</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV">https://portal.vik.bme.hu/kepzes/targyak/VIHIHAV</a></td>
</tr>
<tr>
<td>Simulation of Electronics Circuits</td>
<td>2</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHVJY">https://portal.vik.bme.hu/kepzes/targyak/VIHVJY</a></td>
</tr>
<tr>
<td>Optoelectronics</td>
<td>4</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIEEJV">https://portal.vik.bme.hu/kepzes/targyak/VIEEJV</a></td>
</tr>
<tr>
<td>Windows native programming</td>
<td>2</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHVAV">https://portal.vik.bme.hu/kepzes/targyak/VIHVAV</a></td>
</tr>
<tr>
<td>Space Technology</td>
<td>4</td>
<td><a href="https://portal.vik.bme.hu/kepzes/targyak/VIHVAC">https://portal.vik.bme.hu/kepzes/targyak/VIHVAC</a></td>
</tr>
</tbody>
</table>
For current students

CURRENT ACADEMIC CALENDAR
WEEKLY SCHEDULE OF CLASSES
SUBJECT DESCRIPTIONS
FREE ELECTIVE COURSES
HUMAN & ECONOMIC SCIENCE ELECTIVE
MID-TERM EXAMS, TIMETABLE

PROJECT SUBJECTS
PROJECT LABORATORY AND THESIS TOPICS
PROJECT LABORATORY REQUIREMENTS
THESIS PORTAL
BSc THESIS REGULATIONS
BSc FINAL COMPREHENSIVE EXAM
MSC THESIS REGULATIONS

PROGRAM DESCRIPTIONS
BSc ELECTRICAL ENGINEERING
# Academic Calendar

## ACADEMIC CALENDAR for 2019/2020
### BME
### Faculty of Electrical Engineering and Informatics (VIK)

<table>
<thead>
<tr>
<th>Autumn semester</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Registration period</strong></td>
<td>2 – 6 September 2019</td>
</tr>
<tr>
<td><strong>Study period</strong></td>
<td>9 September – 13 December 2019</td>
</tr>
<tr>
<td><strong>Grace period to fulfil course requirements</strong></td>
<td>16 – 20 December 2019</td>
</tr>
<tr>
<td><strong>Exam period</strong></td>
<td>2 – 29 January 2020</td>
</tr>
<tr>
<td><strong>Final exam period</strong></td>
<td>2 – 31 January 2020</td>
</tr>
<tr>
<td><strong>Graduation ceremony for international students</strong></td>
<td>TBD (early February)</td>
</tr>
</tbody>
</table>

### **days off (no classes, tests or exams):**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Sports Day</td>
<td>12 September 2019 (Thu)</td>
</tr>
<tr>
<td>Faculty Days (Schönherz Cup)</td>
<td>30 September – 1 October 2019 (Mon-Tue)</td>
</tr>
<tr>
<td>National holiday (commemoration of the Revolution of 1956)</td>
<td>23 October 2019 (Wed)</td>
</tr>
<tr>
<td>National holiday (All Saints' Day)</td>
<td>1 November 2019 (Fri)</td>
</tr>
<tr>
<td>Students’ Scientific Conference (“TDK”)</td>
<td>12 November 2019 (Tue)</td>
</tr>
<tr>
<td>Open Day for secondary-school students</td>
<td>29 November 2019 (Fri)</td>
</tr>
<tr>
<td>Winter holidays (incl. Christmas &amp; New Year’s Eve)</td>
<td>23 December 2019 – 1 January 2020</td>
</tr>
</tbody>
</table>

### **make-up Saturdays (for national, non-holiday days off):**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>regular classes with even-week Friday schedule</td>
<td>7 December 2019</td>
</tr>
<tr>
<td>extra day of grace period (for in-class test retakes)</td>
<td>14 December 2019</td>
</tr>
</tbody>
</table>
Weekly schedule

<table>
<thead>
<tr>
<th>Day</th>
<th>from</th>
<th>till</th>
<th>Subject</th>
<th>Subject code</th>
<th>Course</th>
<th>Type</th>
<th>Week</th>
<th>Lecturers</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>10:15</td>
<td>12:00</td>
<td>Electromagnetic Fields</td>
<td>BMEVIHVMA08</td>
<td>A2</td>
<td>Theory</td>
<td>2,4,6,8,10,1</td>
<td>Bokor Árpád</td>
<td>V1501</td>
</tr>
<tr>
<td>Monday</td>
<td>10:15</td>
<td>12:00</td>
<td>Electromagnetic Fields</td>
<td>BMEVIHVMA08</td>
<td>A2</td>
<td>Theory</td>
<td>1,3,5,7,9,11,13</td>
<td>Bokor Árpád</td>
<td>V1501</td>
</tr>
<tr>
<td>Tuesday</td>
<td>08:15</td>
<td>10:00</td>
<td>Advanced Mathematics for Electrical Engineers</td>
<td>BMET90MX55</td>
<td>A0</td>
<td>Theory</td>
<td>All</td>
<td>Hurtony Tamás, József, Pódor Bálint</td>
<td>E407</td>
</tr>
<tr>
<td>Wednesday</td>
<td>08:15</td>
<td>10:00</td>
<td>Photonic Devices</td>
<td>BMEVIETMA06</td>
<td>S_A</td>
<td>Theory</td>
<td>All</td>
<td>Cselkö Richard, Dr. Bertai István, Gócsei Gábor, Róbert, Tamus Zoltán Adam</td>
<td>V1102</td>
</tr>
<tr>
<td>Wednesday</td>
<td>08:15</td>
<td>10:00</td>
<td>Electrical Insulations and Discharges</td>
<td>BMEVIEMA14</td>
<td>1920_1_VI1EMA14_eim_angol</td>
<td>Theory</td>
<td>All</td>
<td>Cselkö Richard, Dr. Bertai István, Gócsei Gábor, Róbert, Tamus Zoltán Adam</td>
<td>E305c</td>
</tr>
<tr>
<td>Wednesday</td>
<td>12:15</td>
<td>14:00</td>
<td>Advanced Mathematics for Electrical Engineers</td>
<td>BMET90MX55</td>
<td>A1</td>
<td>Practice</td>
<td>2,4,6,8,10,1,2,14</td>
<td>QBF13</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>14:15</td>
<td>16:00</td>
<td>Electromagnetic Fields</td>
<td>BMEVIHVMA08</td>
<td>A2</td>
<td>Theory</td>
<td>1,3,5,7,9,11,13</td>
<td>Bokor Árpád</td>
<td>V1501</td>
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<td>Wednesday</td>
<td>14:15</td>
<td>16:00</td>
<td>Electromagnetic Fields</td>
<td>BMEVIHVMA08</td>
<td>C2</td>
<td>Practice</td>
<td>2,4,6,8,10,1,2,14</td>
<td>Bokor Árpád</td>
<td>V1501</td>
</tr>
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<td>Thursday</td>
<td>08:15</td>
<td>10:00</td>
<td>Photonic Devices</td>
<td>BMEVIETMA06</td>
<td>S_A</td>
<td>Theory</td>
<td>All</td>
<td>Hurtony Tamás, József, Pódor Bálint</td>
<td>V1102</td>
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<td>Thursday</td>
<td>08:15</td>
<td>10:00</td>
<td>Electrical Insulations and Discharges</td>
<td>BMEVIEMA14</td>
<td>1920_1_VI1EMA14_eim_angol</td>
<td>Theory</td>
<td>All</td>
<td>Cselkö Richard, Dr. Bertai István, Gócsei Gábor, Róbert, Tamus Zoltán Adam</td>
<td>E305c</td>
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<td>Friday</td>
<td>08:15</td>
<td>12:00</td>
<td>Engineering Management</td>
<td>BMEV1MMB03</td>
<td>AE1</td>
<td>Theory</td>
<td>All</td>
<td>Kunsági László, Kósá Zsuzsanna Mária, Szűcs Gábor</td>
<td>IE220</td>
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</table>

These documents are for information purposes only!
**Title**

- Foundation of Computer Science

**Lecturers**

- Dr. Attila Sai, associate professor, Department of Computer Science and Information Theory

**Pre-requisites**

- None

**Objectives**

- To provide a foundation in computer science

**Synopsis**

- The course covers the basics of computer science including programming, data structures, algorithms, and computer systems.

**Assessment**

- Course ID: VISZAA05
- Semester: 2/2/0/n
- Credit: 5
- Tantárgy/félév: 

**Recaps**

- Course coordinator and department:
  - Dr. Katona Gyula, Számítástudományi és Információelméleti Tanszék

**Web page of the course**

- [http://www.cs.bme.hu/sza](http://www.cs.bme.hu/sza)
Pre-requisites

- The subject datasheet of some specialization subjects may include preliminary subject prerequisites
  - Start in the spring semester (degree program roadmap - starts: spring)
  - Start in the fall semester (degree program roadmap - starts: fall)

- Project Laboratory 1., Project Laboratory 2., Diploma Thesis Design 1., Diploma Thesis Design 2. can only be taken one after the other having completed the credits of the previous subject

- Prerequisite of the admission of Diploma Thesis Design 2
  - Please check the project description about the pre-requisites
Your life is changed
Be careful

- New city, new country, new classmates, without family...
- You have to manage your life (accommodation, residence permit, offices, living cost, ...)
- BSc program => MSc program
  - Difficult subjects, hard assessments
  - There is no continuous monitoring
  - „freedom“
  - If you do not start learning at the beginning
    ⇒ You will have too much tasks at the end of the semester
    ⇒ You can not fulfil the subjects
    ⇒ You can not register for further subjects in the next semester (because of the pre-requisites)
    ⇒ ...

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Focus on your study!

- There is no way to grant exemptions from the pre-requisite rules and conditions for admission to thesis defense session.

- The number of credit points to be accumulated, the grade point average to achieve, the number of recaps are controlled. Failing to satisfy those rules, you are dismissed from your studies.
  - twice the programme duration
  - min. 20 credits / the latest 3 active semesters
  - MSc: cumulated GPA of min. 2.50 at the end of the 2nd active semester
  - max. 6 exams/subject

- Plagiarism and cheating: zero tolerance!
  - At least fail of the subject in the given semester (both copying and copied students)
Tuition fee

- If you have no scholarship...

<table>
<thead>
<tr>
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<th>For non-EU citizens</th>
<th>For EU citizens</th>
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</thead>
<tbody>
<tr>
<td>MSc program</td>
<td>3500EUR/semester</td>
<td>2750EUR/semester</td>
</tr>
</tbody>
</table>

- Stipendium Hungaricum Scholarship
  - max. 2 semesters extension
  - min. 36 credits / the latest 2 active semesters (decision of the Tempus foundation)

- Delay in the study program
  - Time, money, etc.
  - Residence permit...
Credit transfer

- You can transfer your previously obtained credits to BME.

- Requirement/Rules:
  - The transferred subject needs to match with the BME subject at least in 70%.
  - The deadline is the 4th week of each semester.

- Process:
  - Submit the E024 request in the Neptun system
  - Submit your transcript as well.
  - Submit the official description (in English!) of the transferred subject as well.
  - You will get the FINAL decision in 2-5 days. (No more negotiations later!)
Student life ↔ Study
Thank you for your attention!