## MSc Timber Industry Engineering

### About the Faculty

The Simonyi Karoly Faculty is the only higher Education Institution for wood science and technology in Hungary. It has 50 years of experience in education and research. In the past years, hundreds of engineers have graduated from this Faculty to work locally and worldwide as international researchers, engineers or teachers.

<table>
<thead>
<tr>
<th><strong>Level:</strong></th>
<th>Master (MSc)</th>
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<tbody>
<tr>
<td><strong>Duration of the programme:</strong></td>
<td>4 semesters</td>
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<td><strong>Field of training:</strong></td>
<td>Technical/engineering</td>
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<td><strong>Tuition fee:</strong></td>
<td>4 600 USD / semester</td>
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<td><strong>Discount for ISSP application:</strong></td>
<td>40%</td>
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<td><strong>More info:</strong></td>
<td><a href="http://www.issphungary.com">www.issphungary.com</a></td>
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<td><strong>Starting date:</strong></td>
<td>September or February</td>
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<td><strong>Number of credits required for the Basics degree:</strong></td>
<td>120</td>
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<td><strong>Deadline for registration:</strong></td>
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<td><strong>Autumn semester:</strong></td>
<td>15th of May</td>
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<td><strong>Spring semester:</strong></td>
<td>15th of November</td>
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<td><strong>Prerequisites for application:</strong></td>
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<td><strong>BSc in the field of Technics, Technology or Biology</strong></td>
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<td><strong>At least CEFR B2 level (or equivalent TOEFL or IELTS Academic) proficiency in English</strong></td>
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Conversion table for language
Minimum conditions for entry into Master’s training cycle in the case of holders of the following degrees:

materials engineering, mechanical engineering, light industry engineering, engineering management, industrial design engineering, mechatronic engineering, electrical engineering, civil engineering, bioengineering in the field of technical training and biology BSc in the field of natural sciences

Minimum number of credits required to enter the Master's program is 70 credits in the following areas:

- 20 credits in the field of basic natural sciences,
- 10 credits in the field of economics and humanities,
- 40 credits in the field of professional knowledge.

Requirement for admission to the Master's program is that students have at least 40 credits in the listed areas on the basis of their undergraduate studies. In the Master's program, missing credits must be obtained as defined in the higher education institution's study and examination rules.
Timber industry engineers' professional competences

a) knowledge

- Know the natural scientific and technical theory and practice required for timber industry engineering.
- Know the most important features and application areas of materials and structural materials used in wood science, timber industry and timber construction.
- Know the rules for preparing technical documentation.
- Know organisation tools and methods related to management, and legislation required to practice the profession.
- Have knowledge of measurement technology and measurement theory related to timber industry.
- Know information and communication technologies related to timber industry.
- Know tools and methods of computer modelling and simulation.

b) skills

- Be capable of laboratory testing and analysis of materials used in timber industry, of evaluation and documentation of test results.
- Be able to process, systematize and analyze information gathered during the operation of timber industry systems and processes, and to draw conclusions.
- Can enrich the knowledge base of timber industry with original ideas.
- Be able to apply integrated knowledge in the fields of timber industry machinery, equipment and processes, materials and technologies used in timber industry, and related electronics and information technology.
- Be capable of global design of complex systems based on a systematic and process-oriented thinking.
- Be capable of complex design and management of the use of technical, economic, environmental and human resources.
- Be able to apply and further develop processes, models and information technologies used in the design, organization and operation of timber industry systems and processes.
- Be able to ensure the quality of timber industry systems, technologies and processes, to solve metrological and process control tasks.

c) attitude

- Strive to meet the requirements of sustainability and energy efficiency when designing timber industry technologies and products.
- Seek to plan and performs tasks independently or in a working group in a professionally high level.
- Strive to carry out work in a complex approach, based on a system-oriented and process-oriented mindset, taking into account the entire value creation chain (from the wood raw material to the destruction and recycling of wood products).
- In the course of work, study the possibility of setting targets for research, development and innovation in wood industry and strive to achieve them.
• Be open to professional trainings for self-education and self-development.
• Be committed to high quality work and strive to convey this approach to co-workers.

d) autonomy and responsibility

• Be independent and initiative when solving professional problems.
• Be responsible for sustainability and environmental awareness.
• Take decisions carefully, in consultation with representatives of other (mainly legal, economic, energetic and environmental, engineering, architectural) fields, and take responsibility for them.
• Take into account the principles and application of environmental protection, quality, consumer protection, product liability, equal access and the basic standards of health and safety at work, technical, economic and legal regulations and engineering when making decisions.
• Use wood raw materials in a responsible way and work with wood from sustainable forestry (including plantation).

Disciplines and fields leading to the qualification included in the program:

• natural sciences 20-35 credits;
• economic and human knowledge 10-20 credits;
• material science and mechanical engineering knowledge 15-35 credits;
• optional design and manufacturing technology knowledge together with master's thesis 40-60 credits.

Practical training requirements

Practical training is a training of at least six weeks organized in a vocational training place, the further requirements of which are specified in the study plan.