

Educational Outcomes of the Study program Master Paper Technology (further education)

The Master program in “Paper Technology” is a graduate level further education intense, technical engineering study concept, focusing on the areas cardboard and paper production. It provides graduates with a profound, wide-ranging specialist and interdisciplinary knowledge about the value chain in the wood, paper and printing industry. The further education Master program in Paper Technology offers in the first semester training in specific technical competences such as pulp production, paper technology with specific properties and test methods for engineers with various engineering backgrounds. During the next semesters, the Master program Paper Technology offers an intense subject-specific as well as interdisciplinary training for hands-on engineers that qualifies them for leading positions in the paper industry. Upon successful completion of the program, our graduates are expected to be qualified:

- To manage and optimize entire production processes as well as to plan, set up, put into operation and maintain the corresponding plants.
- To perform in business areas such as application technology consultancy and technical support as well as sales and marketing, thanks to their wide-ranging knowledge of products within the paper industry.
- To hold positions related to research and development of new products, processes and machines, and/or as trouble-shooting experts on technology side.
- To ensure quality standards as well as environmental compatibility and sustainability of production processes and products.
- To further their personal development in order to become executives in the above mentioned areas.

In order to achieve these educational outcomes, our Paper Technology Master program provides students with the following knowledge, skills and expertise:

1. Technical specific knowledge in conjunction with production processes and the resulting product properties along the value chain wood-paper-print (e.g. Module 2: Introduction into Paper Technology, Module 3: Pulp Technology, Module 4: Stock Preparation, Module 5: Paper Testing, Module 6: Paper Chemistry, Module 7 Minerals)
2. Comprehensive knowledge and understanding of specific mathematical, scientific and academic and specific technical engineering contexts as well as the capability to apply this knowledge appropriately (e.g. Module 1 Chemical Engineering, Module 8: Automation I and Module 17: Statistics and Design of Experiments).
3. A broad, detailed and analytical understanding, plus the ability for critical analysis based on their up-to-date level of knowledge in one or more areas of expertise in order to improve, to develop and to test products with specific properties and defined quality.(e.g. Module 12:

Coating I, Module 13: Coating II, Module 18: Technical Elective: Specialty Papers, Module 18: Tissue)

4. The capability to monitor , analyze, evaluate, improve and develop complex paper industry systems consisting of devices, machines, plants and automation technology applications (e.g. Module 9: Automation II, Module 10: Board and Paper Technology I, Module 11: Board and Paper Technology II)
5. A responsible attitude that enables them to analyze conceptual designs and to evaluate paper technology processes, while taking into account ethical, ecological and economical aspects as well as the sustainability of the processes and products in use (e.g. Module 16: General Management II, Module 19: Marketing and Product Management, Module 19: Sustainable Development).
6. The capability to communicate with professionals from various areas of expertise in an international environment, to present results and papers on a national and international level, to work on projects cooperatively and in a result-oriented way as part of a team, performing either as a team member or leader and the ability to work in executive positions (e.g. Module 14: Project Management and Intercultural Communication).
7. The capability of self-organizing learning and work processes according to the concept of lifelong learning, to manage projects, to independently carry out academic work as well as practical research work (e.g. Module 14: Project Management and Intercultural Communication, Module 20: Project, Module 21: Master Thesis)

These educational outcomes include an academic and social competence to carry out a qualified employment. Furthermore, our Master program enables graduates to take on a responsible attitude in civil life and to continuously develop their personality.