

PhD. Crash Course in Paper Technology

Course code at MIUN: TKA003F

Course description

The course will cover; Fibre and fibre properties, Paper components, Pulp manufacturing, Papermaking, Basic business aspects for the pulp and paper industry and different products of the paper industry.

Learning outcomes

After completed course the student should be able to:

- Describe different fibre and pulp properties
- Explain the principles the pulping process
- Define the components of different paper products
- Explain the principles the paper manufacturing process
- Describe the methods available to characterise paper properties
- Evaluate and predict the impact of manufacturing process on paper properties
- Use paper optical simulation tools and predict product appearance
- Explain the principles of ink and paper interaction
- Describe the relations between products, end-use and printing properties, and the physical and appearance properties.
- Describe the concept of sustainability in paper manufacturing.

Course main content

The lectures will cover the theory of pulp and paper manufacturing, paper properties and characterization methods of paper. Basic mechanisms in dewatering, sheet formation and surface treatment. The lectures will be supplemented by mill visit, research lab visit and practical elaborations on paper making.

Literature/Course material: Selected reprints, lecture notes, scientific articles and technical reports

Contact

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Examiner

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Type: Lectures

ECTS: 3

Examination: Written examination

Place: Digital Printing Center, Mid Sweden University, Järnvägsgatan 3, 891 18 Örnsköldsvik