

Course: Fibre Water Interactions

KTH Course FCK 3111

**Course leaders:** Prof. Lars Wågberg and Dr Per Larsson

## Date: November 13–16, 2023

**Place:** KTH-Teknikringen 56

### Principal lecturers:

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# Monday, 13th of November, Rånby Room Time/lecturer

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| 1. Fibre, paper and water interactions: Problem specification, importance – New products 2. Thermodynamics of water vapour adsorption to fibres 3. Swelling of polyelectrolyte gels | 9–10 LW  10–12 TL  13–15 PH |

#### Tuesday, 14th of November WWSC Conference room Time/lecturer

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| 1. Swelling of cellulose fibres 2. Influence of fibre composition on moisture sorption   and fibre swelling   1. Influence of moisture on mechanical properties of paper: Fibre and joint properties | 9–10 LW  10–12 LS  13–15 SÖ |

# Wednesday, 15th of November Rånby Room Time/lecturer

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| 1. Effect of moisture on the performance of cellulose-based films and cellulose-containing composites 2. Dimensional stability of paper 3. Wetting fundamentals 4. Capillary penetration and superhydrophobicity – Fundamentals and applications | 9–10 PL  10–12 PL  13–15 AS  15-17 LW |

#### Thursday, 16th of November WWSC Conference Room Time/lecturer

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| 1. Liquid absorption in hygiene products 2. Influence of moisture on mechanical properties of paper and board 3. Mechanosorptive effects in fibres, paper and cellulosic films | 8–10 CH  10–12 MN  13-15 SL |
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