



National Graduate Research School in Tribology

Research school course plan

Title: Tribological materials and tribological coatings

Points: 4 hp

Time : 5-7 may 2015

Examiner: Urban Wiklund, Professor
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Tribomaterials Group
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Objectives: After completing this course you will be able to:

- describe the influence of the microstructure of metals, ceramics and polymers on their mechanical and tribological properties
- make sound selection of materials for tribological components
- explain what benefits lie in coating tribological components
- describe a few common methods of coating deposition
- describe the characteristics of the most common tribological coatings

Contents: Microstructures of materials, deformation mechanisms, thermal properties, coating deposition techniques, coating families, coatings tribology

Teaching: 15 h lectures
6h laboratory work on coating deposition and coating characterization

Individual case studies on materials selection

Prerequisites: Introduction to tribology or corresponding

Examination: Based on reports on assignments and case studies

Grading: Pass or fail