



Swedish Research School in Tribology

Preliminary course plan

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| Title: | <i>Tribological materials and tribological coatings</i> |
| Points: | 4 hp |
| Time: | 13-15 April |
| Objectives: | After completion the student should be able to <ul style="list-style-type: none">- describe the influence of the microstructure of metals, ceramics and polymers on their mechanical and tribological properties- make sound selections of materials for tribological components- explain the benefits of coating or surface hardening of tribological components- describe a few common methods in surface engineering- describe the characteristics of the most common tribological coatings |
| Contents: | Microstructures of materials, mechanical properties and deformation mechanisms, thermal properties, coating deposition techniques, coating families, coatings tribology |
| Teaching: | 12 h lectures 2×4 h laboratory work on Coating deposition and Coating characterization Individual case study on materials selection |
| Prerequisites: | Introduction to tribology or corresponding |
| Examination: | web based (via Marratech); 2 weeks after the week when the course was given Essay on the case study |
| Grading: | Pass or Fail |
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| Literature: | To be announced |