



Swedish Research School in Tribology

Research school course plan

Title:	Tribological materials and tribological coatings
Points:	4 hp
Time:	4-6 December
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 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 6 h 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
Examiner:	Urban Wiklund (Urban.Wiklund@angstrom.uu.se, 018 4713092) Uppsala University Tribomaterials Group Box 534 751 21 UPPSALA
Literature:	Will be distributed during the course