



Swedish Research School in Tribology

Course plan

Title:	Contact Mechanics
Points:	4 hp
Time:	November 2009
Objectives:	The main objectives of the course are: <ul style="list-style-type: none">- to understand the basics of contacts mechanics- to understand and use Hertz theory- to be able to use numerical methods in contact mechanics- to understand the basics of wear simulations
Content:	Introduction to contact mechanics, Hertz theory, elastic contacts, plastic contacts, rolling/sliding contacts, contacts between rough surfaces, numerical methods in contact mechanics, wear simulation.
Teaching:	The course will be conducted through key lectures, assignments and computer laboratory work.
Prerequisites:	General courses in mechanics and strength of materials.
Examination:	web based (via Marratech); 2 weeks after the week when the course was given
Grading:	Pass or Fail
Examiner:	Stefan Björklund, PhD Department of Machine Design, KTH Email: stefan@md.kth.se
Literature:	<i>Contact Mechanics</i> , K L Johnson (1985), selected review articles, research papers.