

POSMAT I Programa de Pós-graduação em Engenharia de Materiais



Course: Surface Engineering and Wear

Code: MEM.019

Credits: 03

Module: Specific formation

Research area: Selection, processing e characterization

Contents:

Introduction to Surface Engineering. Concept and classification of wear. Wear mechanisms by abrasion, adhesion, erosion and contact fatigue. Coatings and surface treatments. Electrodeposition coatings. Chemical and physical hard coatings. Thermal spray deposition. Selecting coatings and surface treatments.

References:

1. BUDINSKI, K.G. **Surface Engineering for Wear Resistance**. New Jersey: Prentice Hall, Inc, 1988.
2. ZUM GAHR, K.H. **Microstructure and wear of materials**. Amsterdam: Elsevier, 1987.
3. HOLMBERG, K.; MATTHEWS, A. **Coatings tribology: Properties, Techniques and Applications in Surface Engineering**. Amsterdam: Elsevier, 1994.
4. HUTCHINGS, I.M. **Tribology: Friction and Wear of Engineering Materials**. London: CRC Press, 1992.