

POSMAT I Programa de Pós-graduação em Engenharia de Materiais



Course: Corrosion of Metallic Materials

Code: POSMAT0016

Credits: 03

Module: Specific formation

Research area: Selection, processing e characterization

Contents:

Introduction and economic impacts of corrosion. Fundamental concepts in corrosion. Passivation. Corrosion forms, classification according to type and corrosive process. Corrosion at high temperatures. Corrosion under Mechanical stresses. Corrosion tests. Corrosion protection techniques. Corrosion resistant metallic materials.

References:

1. ASM INTERNATIONAL. ASM HANDBOOK Volume 13A **Corrosion: Fundamentals, Testing, and Protection**. 5. ed. 2012. 1135 p.
2. GENTIL, V. **Corrosão**. 6. ed. Rio de Janeiro: LTC, 2011. 376 p.
3. POPOV, B. **Corrosion Engineering: Principles and Solved Problems**. 1 ed. Elsevier, 2015. 774 p.
4. WOLYNEC, S. **Técnicas Eletroquímicas em Corrosão**. 1. ed. São Paulo: Edusp, 2003. 166 p.