



MATERIALS SCIENCE I - SEMESTER WORK TOPICS

- 1. Tensile testing**
- 2. Impact testing**
- 3. Compression testing**
- 4. Fracture mechanics**
- 5. Flexural testing**
- 6. Hardness testing**
 - STATIC METHODS
 - Rockwell
 - Brinell
 - Vickers
 - DYNAMIC METHODS
 - Soft materials (plastics)
- 7. Fatigue**
 - low cycle
 - high cycle
- 8. Creep**
- 9. Technological testing**
 - Wires
 - Pipes
 - Sheets
 - Casting
 - Machining
 - Forging
 - Welding
- 10. NDT Testing**
 - Ultrasound testing
 - X-Ray testing
 - Electromagnetic testing
 - Eddy current
- 11. Testing at higher temperatures**
- 12. Testing at lower temperatures**
- 13. Tribology**
- 14. Metallography**
- 15. Chemical testing (chemical composition analysis)**