ENGINEERING SCHOOL
PRODUCTION ENGINEERING DEPARTMENT
PRODUCTION AND MECHANICAL ENGINEERING

COURSE : MATERIALS
CODE : IP0240
TIME INTENSITY : 3 presential hours/week
2 lab hours
7 non presential hours
PRE-REQUISITES : Physicochemistry
CO-REQUISITES : None
CREDITS : 4 credits

1. GENERAL OBJECTIVE:

Relate the properties of engineering materials with their internal structure, and the possibility of artificially altering, keeping in mind the following principles: thermal and thermomechanical treatments in order to select the most appropriate for each given application.

2. CONTENTS:

MODULE 0: Introduction of the program
MODULE 1: Materials of Engineering
MODULE 2: Structure of Materials
MODULE 3: Phase Diagram
MODULE 4: Iron alloys
MODULE 5: Heat Treatment
MODULE 6: Non-ferrous alloys
MODULE 7: Ceramic Materials
MODULE 8: Polymers
MODULE 9. Composite Materials

3. EVALUATION:

<table>
<thead>
<tr>
<th>Type of evaluation</th>
<th>Percent</th>
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<tbody>
<tr>
<td>First partial exam</td>
<td>15%</td>
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<tr>
<td>Second partial exam</td>
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<tr>
<td>Final exam</td>
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<tr>
<td>Lab</td>
<td>25%</td>
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<tr>
<td>Follow up</td>
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4. BIBLIOGRAPHY: