

COURSE ID SHEET



Course No. **5281**

NTUA

Semester: **5** Core Elective **X** Specialization

Title: **MATERIALS DECAY AND PROTECTION**

Aim: The education of students in the field of decay and protection of materials (metals and porous materials).

Content:

- Susceptibility of materials (metal or porous material) to decay under specific environmental conditions, as well as and the resistance of materials to decay (durability).
- Mechanical properties/ stresses alteration as a decay result.
- Main decay types.
- Decay process evolution.
- Decay dependency on environmental factors.
- Modification of materials properties and environmental parameters.
- Study of the system of material-environment, for the reduction of the development and evolution of decay.
- Protection of materials at industrial and buildings scale.

Hours per semester:	LECTURES	26	EXERCISES	21	LABORATORY	-	HOME-WORK	43	TOTAL HOURS: 90
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Student performance/ evaluation:

The evaluation of the students will be done through:

- A Final (written) examination (FE, 65% of the final grade), and
- Laboratory exercises (LE, 35% of the final grade).

The final grade results as follows: Final Grade = 0.65 x (FE) + 0.35 x (LE)