

COURSE GUIDE – short form

Academic year 2024-2025

Course name	Equipments and machinery vibrations					Course code	2.ISI.03.DD		
Course type	DD	Category	DI	Year of study	2	Semester	3	Number of credit points	4

Faculty	Materials Science and Engineering				Number of teaching and learning hours					
Field	Industrial Engineering				Total	L	T	LB	P	IS
Specialization	Industrial safety engineering				100	28		28		44

Pre-requisites from the curriculum	Compulsory	
	Recommended	

General objective	The use of fundamental evaluation criteria and methods for the identification, analysis and qualitative and quantitative assessment of vibration generating phenomena.
Specific objectives	<ul style="list-style-type: none"> • Knowing the sources of vibrations / noises; • Knowledge of the main parameters and vibrations and the methods of reduction / elimination • The ability to anticipate possible effects/ to process and interpret the results of a study on the effect of vibrations in practical situations.
Course description	Characteristics of vibration and noise. Vibration and noise control. Vibroacoustic signal processing techniques and methods. Examples of acquisition and processing of vibroacoustic signals. General problems regarding machine foundations and anti-vibration insulation of machines. Elements used for vibration isolation. Notions and specific acoustics phenomena. Methods for combating noise. Combating industrial noise. Legal provisions in the field of occupational safety and health.

Assessment			Schedule	Percentage in the final grade (minimum grade)
A. Final assessment form:	Class tests along the semester	%		50% (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Oral exam with 2 questions	100% (minimum 5)	Sesion	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			50% (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	Lecturer EngD. Mihai POPA	
Teaching assistants	Lecturer EngD. Mihai POPA	