

Module Template for New and Revised Modules¹

Module Code	EEPMMT31
Module Name	PSYCHOACOUSTICS
ECTS Weighting²	5 ECTS
Semester taught	Semester 2
Module Coordinator/s	Nils Peters
<u>Module Learning Outcomes</u> with reference to the <u>Graduate Attributes</u> and how they are developed in discipline	<p>On successful completion of this module, students should be able to:</p> <p>LO1. Understand the fundamentals of auditory perception of attributes such as loudness, pitch, timbre, and spatial hearing.</p> <p>LO2. Conduct independent research in Psychoacoustics and Acoustics</p> <p>LO3. Write research papers and literature reviews on various topics related to Psychoacoustics and Acoustics</p> <p>LO4. Compare and contrast different approaches to the experimental evaluation of auditory perception.</p> <p>Graduate Attributes: levels of attainment</p> <p>To act responsibly - Enhanced</p> <p>To think independently - Attained</p> <p>To develop continuously - Attained</p> <p>To communicate effectively - Attained</p>
Module Content	<p>This module addresses auditory perception and consider the impression associated with various physical and physiological attributes and related measures, including: the physics of sound, loudness, pitch perception, timbre perception, Auditory Scene Analysis (ASA), spatial hearing, and sound source localization.</p>

¹ [An Introduction to Module Design](#) from AISHE provides a great deal of information on designing and re-designing modules.

² [TEP Glossary](#)

Teaching and Learning Methods Learning is via Lecture presentation and question and answer sessions.

Assessment Details³ Please include the following: <ul style="list-style-type: none"> • Assessment Component • Assessment description • Learning Outcome(s) addressed • % of total • Assessment due date 	Assessment Component	Assessment Description	LO Addressed	% of total	Week due
	Assignment 1	Research Essay	1, 2, 3, 4	50%	Week 8
	Assignment 2	Research Essay	1, 2, 3, 4	50%	Week 12

Reassessment Requirements

Contact Hours and Indicative Student Workload³	Contact hours: 22 hours of lectures
	Independent Study (preparation for course and review of materials): 28 hours
	Independent Study (preparation for assessment, incl. completion of assessment): 30 hours

Recommended Reading List

Stephen Handel : Listening
 Albert Bregman : Auditory Scene Analysis
 F. Alton Everest: Master Handbook of Acoustics
 Barry Blesser and Linda-Ruth Salter: Spaces Speak, Are you Listening?

Module Pre-requisite None

Module Co-requisite None

Module Website <https://www.tcd.ie/eleceng/mmt/postgraduate/semester-2/#psychoacoustics>

³ [TEP Guidelines on Workload and Assessment](#)

Are other Schools/Departments involved in the delivery of this module? No
If yes, please provide details.

Module Approval Date

Approved by

Academic Start Year 2024

Academic Year of Date 2024-2025