

NEW PROFESSIONAL FIGURES

The Acoustic Engineering graduates are best suited for jobs that require expertise in musical acoustics, room acoustics or electro-acoustics.

Examples of the sort are designer positions in companies that produce acoustic, electro-acoustic, electronic or digital musical instruments. Other areas of interest concern the production of transducers (loudspeakers, microphones, vibration sensors, etc.); Public Address and high-end audio diffusion systems; where a solid background in audio processing and computational acoustics is highly desired. Another area where the acoustic Engineering graduate can be rightfully employed is that of the acoustic design of objects and environments. This is, in fact, an area of great interest for the public sector as well, where monitoring acoustic pollution and improving the acoustic comfort are topics of ever-growing interest.

The Music Engineering graduates can work in all areas concerning creation, analysis, organization, management and rendering of audio and multimedia content. The most representative companies in this area are those that focus on music production and distribution; national and private broadcasting corporations and institutions; advertising production companies; and the many companies that offer audio-video content streaming. Equally interesting are those companies that work on advertising monitoring and audience intelligence (for user profiling and content personalization purposes). The Music Engineering graduates also find employment in those companies where sound processing algorithms are used for professional audio applications as well as consumer market applications.

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FOR MORE INFORMATION



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MASTER OF SCIENCE MUSIC AND ACOUSTIC ENGINEERING



POLIMI IN MUSIC

After a long didactic experimentation, starting from the Ac. Yr. 2018-19 Politecnico di Milano started a new Master of Science Program in “Music and Acoustic Engineering”, first in Italy to formalize the professional figure of the Acoustic Engineer and also the first at the International level to define and create the professional figure of the Music Engineer. This Master of Science Program is the richest worldwide in terms of number and variety of courses entirely devoted to acoustics and music. This program forms engineers that are ready for research, development and design of high-end technologies in prestigious national and international companies, as well as research institutions.

Music and Acoustic Engineering has two didactic tracks:

- Acoustic Engineering, mainly focused on musical, computational and architectural acoustics, is offered at the Cremona Campus;
- Music Engineering, mainly focused on computer music and audio processing, is offered at the Milano Leonardo Campus.

ACOUSTIC ENGINEERING TRACK

The students that choose to focus on Acoustic Engineering become experts of vibrating and resonant systems. This includes the design of passive and active systems for the production, conditioning, processing and rendering of sound fields for musical or industrial applications as well as for the improvement of the acoustic comfort. They gain expertise in the design of acoustic, electroacoustic, electronic and digital musical instruments; in amplification, diffusion and sonification systems; listening environments; noise control and reduction techniques, etc. They also learn how to conduct acoustic measurements and characterizations; how to perform numerical simulation of the acoustic behavior of vibrational systems and environments; and more.



MUSIC ENGINEERING TRACK

Specializing in Music Engineering means becoming an expert of audio and musical information; learning how to design technologies for sound and music processing as well as systems for managing audio, acoustic and musical information. Students that choose this track focus on audio and music information analysis, classification, processing, storing, representation, coding, organization, publishing and distribution. They gain expertise on the design of technologies for automatic audio content annotation/enrichment, which are critical in music and multimedia streaming services. This includes designing algorithms for the automatic extraction of musical information (rhythmic, harmonic tonal, structural, emotional, etc.) and for a wide range of emerging applications of intelligent music services/systems. They also focus on the design and development of advanced technologies for media arts and high-end live events.

INFO

The graduate in Music and Acoustic Engineering is an emerging and highly coveted professional figure, born of the convergence of diverse disciplines, ranging from acoustic modelling and design, to electro-acoustics; with a deep-rooted knowledge of computer science, audio and acoustic signal processing and computational acoustics.

