

# Department of Sound Engineering

## FIRST-CYCLE STUDIES

### Major: SOUND ENGINEERING

full-time 3-year BA studies

#### Description

The major of sound engineering offers education for sound engineers at two-cycle full-time studies.

First-cycle (BA) programme lasts 3 years (6 semesters) and is a unitary degree programme, i.e., without an assigned specialty. BA-level studies develop basic music recording-making skills (for classical and popular music) and basic film sound-making skills. The education is complemented with the necessary knowledge from selected fields, e. g. acoustics, electronics and electroacoustics. Students develop skills in ear training and score reading; there are, among others, classes on timbre hearing and sound editing. This stage ends with a BA exam, which consists of a presentation of original creative work and a self presentation on one of selected sound-making works. Candidates are required to present a secondary school-leaving certificate with a grade in mathematics, physics or computer science (the subject is chosen by the candidate). It is recommended that candidates choose the advanced level in the above-mentioned subjects during his/her baccalaureate exams.

#### Tests

- ear training and harmony – a written and oral test
- instrument
- media knowledge – a written test
- mathematics and physics knowledge – a written and oral test (for candidates with the secondary school-leaving certificate issued before 2006 and candidates without Polish Baccalaureate (matura))
- a major subject test – an oral exam
- an audiometric test – before the tests, candidates are required to perform an audiometric hearing test at the Department of Music Acoustics and Multimedia of the Chopin University of Music

#### Scope of material

- ear training and harmony:
  - o a written test in ear training – memory dictation, three-part dictation, harmonic dictation, correction of errors in a music material
  - o a written test in harmony – melody harmonisation
  - o an oral test in ear training and harmony – sight singing, recognition of chord types and harmonic combinations, playing of cadenzas, progressions and modulations
- instrument – presentation of a prepared programme (any three pieces, preferably stylistically varied) on a chosen instrument (agreed upon with the Dean's Office). Candidates' musicality will be the focus of assessment, not virtuosity in instrument playing.
- media knowledge (a written test) – selection of one of several subjects concerning knowledge about music, cinema, theatre, television, radio, musical recordings and history of culture,
- a major subject test – test of candidates' predisposition to the sound engineering studies, their sonar imagination, sensitivity to timbre and general knowledge of culture and the media.

- mathematics and physics knowledge – for candidates with a secondary school-leaving certificate issued before 2006 and candidates without Polish Baccaureate (matura)
  - o mathematics – trigonometry, function property analysis and domain identification, equations and inequalities, trigonometric equations, calculus of probability, written — 3-4 problems,
  - o physics – physical units, mechanics, optics, acoustics, electricity written — 2-3 problems,
- an audiometric test – registration at the dean’s office of the Department of Sound Engineering, tel. (0-22) 278 92 83. The examination is free of charge.

### **Additional documents**

- Notes (or photocopies) of the piano parts for the instrument exam (applies to candidates playing an instrument or singing with piano accompaniment). If the candidate does not have his own accompanist and would like to play with the pianist provided by the University – **the material is to be delivered to the dean's office by 3 June 2025.**
- Audiometric test of hearing should be performed at the University (information and registration – Department of Sound Engineering, tel. 22/278 92 83, the test is free). Test dates are available on the University's website.

Details on how the final results are calculated as part of the enrolment process for first-cycle studies for the major of sound engineering.

Exams are marked in the 25-point scale.

The final mark from the exams is the sum of:

- a. the mark obtained during the major test multiplied by 3
- b. the mark obtained from the knowledge of the media test multiplied by 0,8
- c. the mark obtained from the ear training and harmony test
- d. the mark obtained from the selected instrument playing test
- e. result of the secondary school-leaving (“matura”) exam in physics or mathematics or computer science (converted into the 25-point scale) or the mark from the mathematics and physics knowledge test

The maximum number of points to obtain is 170.

A candidate gets qualified if he/she has taken all tests and received:

- at least 18 points as the mark for the major test
- at least 12 points for each of the remaining tests (except the written knowledge of the media test)

The results of audiometric test are auxiliary during the major subject test.

Details of how the result is calculated:

$$W = 3K + I + S_H + M + 0.8P$$

where:

K – number of points obtained from the major subject test (at least 18 pts required)

I – number of points obtained from the selected instrument playing test (at least 12 pts)

$S_H$  – number of points obtained from the ear training and harmony test (at least 12 pts),

whereas  $S_H = 0,5(S+H)$ , where:

S – the arithmetic mean from marks in ear training (written and oral part)

H – the arithmetic mean from marks in harmony (written and oral part)

P – number of points obtained from the written test in knowledge of the media

$M$  – number of points obtained from the mathematics and physics knowledge test or number of points obtained from the conversion of results from the written “matura” exam in mathematics or physics or computer science into the 25-point scale according to the rule given below

$$M = 0,18M_p + 0,7(M_r)^{0,5} \quad (\text{at least 12 pts})$$

where:

$M_r$  – number of percentage points obtained from the “matura” exam in mathematics or physics or computer science on the advanced level

$M_p$  – number of percentage points obtained from the “matura” exam in mathematics (basic level) and, where for candidates who took their “matura” exams in the period between 2007 and 2010 (advanced level) the conversion is made according to the following formula:

$$M_p = (53 - 0.53 \times PG) + PG$$

where:

$PG$  – number of percentage points converted from the advanced level to basic level according to the chart provided by the Ministry of National Education in the Regulation of 8 September 2006:

[http://bip.men.gov.pl/index.php?option=com\\_wrapper&view=wrapper&Itemid=50](http://bip.men.gov.pl/index.php?option=com_wrapper&view=wrapper&Itemid=50)

changing the Regulation on the terms and conditions of grading, classifying and promoting pupils and students and performing tests and exams in public schools.

If a candidate did not take the advanced level of mathematics or physics or computer science on their “matura” exam, then  $M_r = 0$

## **SECOND-CYCLE STUDIES**

### **Major: SOUND ENGINEERING**

**Specialties: Sound Engineering in Film and Television, Sound Engineering in the Multimedia, Music Sound Engineering**

full-time 2-year MA studies

#### **Description**

The Major of Sound Engineering offers two-cycle full-time studies. Second-cycle (MA) studies lasts 2 years (4 semesters). Candidates select one of three Specialties: Music Sound Engineering, Sound Engineering in Film and Television, or Sound Engineering in the Multimedia. Candidates may apply for more than one specialty, but they must indicate a preferred one.

The specialty of music sound engineering develops music recording-making skills, both live and studio recordings (of classical, jazz and the so-called popular music). The specialty of sound engineering in film develops film sound-creating skills. The multimedia specialty develops the skills of sound-creating for audio-visual forms and the so-called “sound design” (generally understood sound creation). The education is complemented with the knowledge of humanities, mainly from the fields of aesthetics: the arts, music, film and recording.

This stage ends with an MA exam, which consists of a presentation of artistic work relevant for the specialty and a written MA thesis.

Recruitment for all specialties is carried out in two stages:

- the first stage includes a test in ear training with elements of harmony, acoustics, knowledge of phonography, including sound engineering in film and television
- the second stage is an interview

Scope of the first stage test material for all specialties includes:

- Checking auditory predispositions and skills, including reading notes, performing rhythmic exercises, recognizing consonances, including triads in inversions and seventh dominants, recognizing major, minor, diminished and increased chords, checking musical memory predispositions.
- Issues of acoustics and electroacoustics:
  - Acoustic properties of sound sources, types of acoustic waves, properties of the acoustic field, wave phenomena
  - Physical characteristics of sound
  - Properties of acoustic signals in time and frequency domains
  - Room acoustics: acoustic parameters, ways of shaping interior acoustics, acoustic properties of studio rooms, word theaters, concert halls
  - Pitch, loudness and timbre: dependence on the physical characteristics of the sound
  - The localization of sound in the space surrounding the listener
  - Sound masking phenomenon
  - The acoustic properties of the sound of musical instruments
  - Microphones, speakers, headphones: structure and principles of operation
  - Parameters of electroacoustic devices
  - Sound systems: monophony, stereo, surround systems
  - Amplifiers, mixing consoles, faders, equalizers, compressors: functions and parameters
  - Digital processing and recording of audio signals: methods and applications
- Workshop issues related to the implementation of sound recordings

## **Specialty: Music Sound Engineering**

### **Tests**

- knowledge and skills test from the material of first-cycle studies (see above)
- interview

### **Scope of material**

- interview in music engineering, during which candidates perform an aural analysis of a music recording prepared by the exam board and present their original works: music recordings. Music recordings (number: 3) should be delivered in a format without lossy data compression in the form of wave files (CD audio media is allowed).

**Additional documents** – not required.

## **Specialty: Sound Engineering in Film and Television**

### **Tests**

- knowledge and skills test from the material of first-cycle studies (see above)
- interview

**Scope of material**

- interview in the field of sound engineering in film and television, during which the candidate presents his / her own works: films with sound.
- Film works (at least two) should be presented as stereo or LCR audio files and video files synchronized with them in the QuickTime dvPAL format and as an open Pro Tools stereo or LCR session; one of the presented works should be a fragment (about 5 minutes) of a fictional film with a layer of dialogues (which does not have to but may contain a sound layer based on post synchrony: both dialogues and effects).

**Additional documents** – not required.

**Specialty: Sound Engineering in the Multimedia****Tests**

- knowledge and skills test from the material of first-cycle studies (see above)
- interview

**Scope of material**

- interview in the field of sound engineering in audiovisual forms, during which the candidate presents the sound to:
  1. an artistic audiovisual form (e. g. an animated film, an experimental film, a film etude, video-art, an installation of an architectural space or other public space). The work should contain sound creative elements.
  2. fragment of a dialogue fiction film.
 Both works should be presented as stereo or LCR audio files and synchronized with them video files in QuickTime dvPAL format and in the form of an open Pro Tools stereo or LCR session.

**Additional documents** – not required.

**Detailed rules for calculating the final result in the admission procedure for second-cycle studies in the field of sound engineering for all specialties.**

The tests are assessed on a 25-point scale.

The final grade is the sum of:

1. grades of the test in ear training with elements of harmony, acoustics, knowledge in the field of phonography, including sound engineering in film and television,
2. grade obtained from the interview multiplied by 2.

The maximum number of points that can be obtained is 75.

A candidate is qualified if he / she has taken all tests and has received at least 12 points for each test.

Candidates for second-cycle studies in the following specializations: sound engineering in film and television and music sound engineering, have the option of choosing **to extend the study program to multimedia subjects, which is carried out on the basis of separately constructed study programs**. Qualification is based on the applicant's declaration.