1. **Title of the module**

CMAT5190/CMAT6190 Spatial Sound Design, Composition and Performance

1. **School or partner institution which will be responsible for management of the module**

Centre for Music and Audio Technology (CMAT)

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Levels 5 and 6

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Term 2

1. **Prerequisite and co-requisite modules**

Co-requisite: CMAT5180/CMAT6180

1. **The programmes of study to which the module contributes**

BSc (Hons) Music Technology and Audio Production; BA (Hons) Music, Performance and Production; BA (Hons) Music Business and Production

1. **The intended subject specific learning outcomes.  
   On successfully completing the module Level 5 students will be able to:**
2. recognise and describe the characteristics of multichannel sound in electroacoustic, computer-based composition and sound installation;
3. demonstrate a practical understanding of sound spatialisation developments and be familiar with suitable methods working in a variety of multi-loudspeaker formats;
4. work creatively with sound and space utilising some of the latest specialist technology.

**On successfully completing the module Level 6 students will be able to:**

1. recognise, evaluate and demonstrate a critical awareness of the potential use of multichannel sound in electroacoustic, computer-based composition and sound installation;
2. demonstrate an advanced understanding of sound spatialisation developments and be familiar with suitable methods working in a variety of multi-loudspeaker formats;
3. produce advanced creative work that uses the latest sound spatialisation technologies.
4. **The intended generic learning outcomes.  
   On successfully completing the module Level 5 students will be able to:**
5. assimilate theoretical and aesthetic systems of thought and to relate theory to practice;
6. synthesize inputs (knowledge, materials, information) in order to generate outputs in written, aural and practical format;
7. manage time and resources effectively, plan and set priorities.

**On successfully completing the module Level 6 students will be able to:**

1. demonstrate a systematic understanding of theoretical and aesthetic systems of thought and to relate theory to practice;
2. synthesize and deploy accurately inputs (knowledge, materials, information) in order to generate outputs in written, aural and practical format;
3. manage time, resources and own learning effectively, plan and set priorities.
4. **A synopsis of the curriculum**

Spatial sound is a powerful tool for immersion and is fast becoming a must-have knowledge for many different media and technologies including cinema, theatre, sound installations, exhibitions, live performance and game sound. This module will explore spatial sound, multi-loudspeaker and surround sound formats, including an outline of the developments of spatial sound music and the work of significant composers in this field. Students will study both the aesthetics and technology of multichannel music, including live diffusion techniques, large sound distribution systems and multichannel sound installations. Students will be led to produce creative work that explores the rich potential offered by sound spatialisation techniques, which will culminate in a live performance with the Music and Audio Arts Sound Theatre (MAAST) system.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Blesser, B. and Salter, L.-R. (2007). S*paces Speak, Are You Listening? Experiencing Aural Architecture*. Cambridge, Massachusetts: MIT Press.

Born, G. (ed.) (2013). *Music, Sound and Space*. Cambridge: Cambridge University Press.

Ewan S. and K. Lauke (2010). 'Music, Space and Theatre: Site-specific approaches to multichannel spatialisation'. *Organised Sound*, 15(3), 251-9.

Landy, L. (2012). *Making Music with Sounds*. NY: Routledge.

Roginska A., and Geluso P. (eds) (2018). *Immersive Sound: The Art and Science of Binaural and Multi-Channel Audio*. London: Focal Press.

Rumsey, F. (2013). *Spatial Audio*. Abingdon: Focal Press.

Smalley, D. (2007). ‘Space-form and the Acousmatic Image’. *Organised Sound*, 12(1), 35–58.

1. **Learning and teaching methods**

This module will be taught by means of lectures, workshops, seminars and a group tutorial session.

Total Contact Hours: 22

Independent Study Hours: 128

Total Study Hours: 150

1. **Assessment methods**

13.1 Main assessment methods

Assessment for Level 5 students:

This module will be assessed by the following methods:

1) Multi-channel Composition (5 min) (70%), plus 400-word written report (10%)

2) Live Performance (3 min) (10%) and Diffusion Score (10%)

Level 6 students will be given separate coursework briefs which refer to more advanced compositional theories that the student is expected to engage with in their work.

13.2 Reassessment methods

Coursework 100%

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1/8.4* | *8.2/8.5* | *8.3/8.6* | *9.1/9.4* | *9.2/9.5* | *9.3/9.6* |
| **Learning/ teaching method** |  |  |  |  |  |  |
| **Private Study** | x | x | x | x | x | x |
| Lecture | x | x |  | x |  |  |
| Workshop | x | x | x | x | x |  |
| Seminar | x | x |  | x | x |  |
| Group Tutorial | x | x |  | x | x |  |
|  |  |  |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |
| Multi-channel Composition | x | x | x | x | x | x |
| Report | x |  |  | x | x | x |
| Live Performance |  | x | x | x | x |  |
| Diffusion Score | x | x |  | x | x | x |

1. **Inclusive module design**

The Centre recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Medway, CMAT

1. **Internationalisation**

The module encourages investigation and experimentation on spatial sound using approaches developed particularly in North America and Europe, including understandings and interpretations of sound events and contexts, and the variety of meanings they may take in relation to space. The multi-channel composition assignment and subsequent performance may draw influences from a variety of sonic environments and approaches to sound spatialisation.

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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