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Audio Technology - ELE00024C

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- **Department:** Electronic Engineering
- **Module co-ordinator:** Prof. Andy Hunt
- **Credit value:** 10 credits
- **Credit level:** C
- **Academic year of delivery:** 2020-21
 - See module specification for other years: [2018-19](#) [2019-20](#)

Module summary

When planning the design of the next generation of music technology devices and systems, it's really helpful to know how they have developed so far, picking up technical principles along the way. Therefore this module introduces you to the history and development of music technology systems, and gives you practical experience in building software synthesisers, along with understanding the basics of sound, musical computing, and synthesis techniques.

Module will run

Occurrence

A

Teaching cycle

Autumn Term 2020-21

Module aims

Subject content aims:

- To explore how music is created with technology and consider the history of technology in music making, synthesis and composition
- To introduce students to the musical and technology changes of the 20th century, which have resulted in today's Music Technology stateofheart
- To give students a basic grounding in fundamental concepts in audio processing and music technology
- To give the students practical experience of a digital synthesis package in order to explore the basic underlying techniques of sampling and synthesis

Graduate skills aims:

- To establish fundamental skills in gathering and presenting information from reliable sources and technical writing, recognising issues of plagiarism and collusion
- To foster creativity, innovation and critical thinking

Module learning outcomes

Subject content learning outcomes

After successful completion of this module, students will:

- Be able to describe the historical context of synthesis techniques and their application in contemporary music
- Understand the theory behind sampling and synthesis systems
- Be able to manipulate and analyse digital audio signals against target specifications
- Be able to build a simple synthesis system in PureData and critically evaluate the results

Graduate skills learning outcomes

After successful completion of this module, students will:

- Be able to construct basic technical reports and identify reliable sources of information, recognising issues of plagiarism and collusion
- Have developed skills in analysis, problem solving, critical evaluation, innovation and creativity

Assessment

Task	Length	% of module mark
Essay/coursework Sound Synthesis Project Report	N/A	100

Special assessment rules

None

Reassessment

Task	Length	% of module mark
Essay/coursework Sound Synthesis Project Report	N/A	100

Module feedback

'Feedback' at a university level can be understood as any part of the learning process which is designed to guide your progress through your degree programme. We aim to help you reflect on your own learning and help you feel more clear about your progress through clarifying what is expected of you in both formative and summative assessments.

A comprehensive guide to feedback and to forms of feedback is available in the Guide to Assessment Standards, Marking and Feedback. This can be found at <https://www.york.ac.uk/students/studying/assessment-and-examination/guide-to-assessment/>

The Department of Electronic Engineering aims to provide some form of feedback on all formative and summative assessments that are carried out during the degree programme. In general, feedback on any written work/assignments undertaken will be sufficient so as to indicate the nature of the changes needed in order to improve the work. Students are provided with their examination results within 20 working days of the end of any given examination period. The Department will also endeavour to return all coursework feedback within 20 working days of the submission deadline. The Department would normally expect to adhere to the times given, however, it is possible that exceptional circumstances may delay feedback. The Department will endeavour to keep such delays to a minimum. Please note that any marks released are subject to ratification by the Board of Examiners and Senate. Meetings at the start/end of each term provide you with an opportunity to discuss and reflect with your supervisor on your overall performance to date.

Indicative reading

Puckette, Miller, "The Theory and Technique of Electronic Music" (2007) <http://crca.ucsd.edu/~msp/techniques.htm>

Roads, Curtis, "The Computer Music Tutorial", MIT (1996)

The information on this page is indicative of the module that is currently on offer. The University is constantly exploring ways to enhance and improve its degree programmes and therefore reserves the right to make variations to the content and method of delivery of modules, and to discontinue modules, if such action is reasonably considered to be necessary by the University. Where appropriate, the University will notify and consult with affected students in advance about any changes that are required in line with the University's policy on the [Approval of Modifications to Existing Taught Programmes of Study](#).

Coronavirus (COVID-19): changes to courses

The 2020/21 academic year will start in September. We aim to deliver as much face-to-face teaching as we can, supported by high quality online alternatives where we must.

Find details of the measures we're planning to protect our community.

[Course changes for new students](#)