

Broadcast Audio

Module Information

2022.01, Approved

Summary Information

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| Module Code | 6537STE |
| Formal Module Title | Broadcast Audio |
| Owning School | Engineering |
| Career | Undergraduate |
| Credits | 20 |
| Academic level | FHEQ Level 6 |
| Grading Schema | 40 |

Teaching Responsibility

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|-----------------------------------|
| LJMU Schools involved in Delivery |
| LJMU Partner Taught |

Partner Teaching Institution

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| Institution Name |
| Liverpool Institute for Performing Arts |

Learning Methods

| Learning Method Type | Hours |
|----------------------|-------|
| Lecture | 15 |
| Workshop | 25 |

Module Offering(s)

| Display Name | Location | Start Month | Duration Number Duration Unit |
|--------------|----------|-------------|-------------------------------|
| SEP-PAR | PAR | September | 12 Weeks |

Aims and Outcomes

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| Aims | This module aims to give students a deep understanding of the technical requirements, systems and operational considerations when working with audio for broadcast. Starting in the field of radio broadcasting, the module will also explore audio in the context of television production in both studio and outside broadcast contexts. |
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After completing the module the student should be able to:

Learning Outcomes

| Code | Number | Description |
|------|--------|---|
| MLO1 | 1 | Design an audio specification for a live television event to a defined brief |
| MLO2 | 2 | Evaluate the choice and performance of specific technical solutions to key broadcast audio requirements |
| MLO3 | 3 | Recall and explain the key technical processes associated with audio for broadcast |

Module Content

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|------------------------|---|
| Outline Syllabus | Transmission for Broadcast AM/FM transmission; DAB, DTTV and MPEG2; modulation and intermodulation; sidebands and frequency planning; streaming audio Metering Considerations VU, PPM, QPPM, LUFS and EBU R128 Signal Processing for transmission Phase Rotators, Limiting, Multi-band compression; use of Dial Norm Technical Requirements for Broadcast Studios Mixer topology and function; TBU interfacing; mix minus generation and applications, communications (TB, RTB, Pres / Cont. feeds); radio studio operation; GPIO set-up and use Audio Formats for Broadcast Mono, stereo, surround; analogue and digital signal distribution; Dolby E Audio for Television Visual considerations; microphone choice and placement; synch requirements – EBU/SMPTE, Tri-Level Sync Outside Broadcast Systems topology and structure; audio splitting; audio networking Roles and Functions Broadcast Assistants, Studio Manager, Sound Supervisor |
| Module Overview | |
| Additional Information | Jon Thornton is the Module Leader (j.thornton@lipa.ac.uk) |

Assessments

| Assignment Category | Assessment Name | Weight | Exam/Test Length (hours) | Module Learning Outcome Mapping |
|---------------------|-----------------------------|--------|--------------------------|---------------------------------|
| Report | System Design and Rationale | 60 | 0 | MLO1, MLO2 |
| Exam | Written Exam | 40 | 1.5 | MLO3 |

Module Contacts

Module Leader

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|--------------|--------------------------|-----------|
| Contact Name | Applies to all offerings | Offerings |
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Partner Module Team

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| Contact Name | Applies to all offerings | Offerings |
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