# Wrexham Glyndŵr University

**MODULE SPECIFICATION PROFORMA**

| **Module Title:** | Live Sound | **Level**: | 4 | **Credit Value**: | 20 |
|---|---|---|---|---|---|

| **Module code**: | CMT403 | **Is this a new module?** | No | **Code of module being replaced**: | N/A |
|---|---|---|---|---|---|

| **Cost Centre**: | GACT | **JACS3 code**: | J930 |
|---|---|---|---|

| **Trimester(s) in which to be offered:** | 2 | **With effect from:** | September 16 |
|---|---|---|---|

| **School:** | Creative Arts | **Module Leader:** | Colin Heron |
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| Scheduled learning and teaching hours | 48hrs |
|---|---|
| Guided independent study | 152hrs |
| Placement | 0hrs |
| **Module duration (total hours)** | 200hrs |

| **Programme(s) in which to be offered** | Core | Option |
|---|---|---|
| BSc (Hons) Sound Technology | ☑ | ☐ |
| BSc (Hons) Music Technology | ☑ | ☐ |
| BSc (Hons) Professional Sound and Video | ☑ | ☐ |

| **Pre-requisites** |
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| None |

| **Module Aims** |
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| The content of this module is an introduction to live sound production as applied to the touring and installation sound system professional. The theory concentrates on the design and operation of medium to large-scale public address systems. It develops the student's appreciation of the key elements that are required in a high quality sound system and furnishes them with the required skills to play an active part in a live sound company or production team. |

| **Intended Learning Outcomes** |
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Key skills for employability

  KS1      Written, oral and media communication skills
  KS2      Leadership, team working and networking skills
  KS3      Opportunity, creativity and problem solving skills
  KS4      Information technology skills and digital literacy
  KS5      Information management skills
  KS6      Research skills
  KS7      Intercultural and sustainability skills
  KS8      Career management skills
  KS9      Learning to learn (managing personal and professional development, self-management)
  KS10    Numeracy

| At the end of this module, students will be able to | | Key Skills | |
|---|---|---|---|
| 1 | Appraise the environmental factors that limit the effectiveness of available technology. | KS1 | KS3 |
| | | KS6 | |
| | | | |
| 2 | Design and specify technological solutions for a variety of sound reinforcement applications. | KS3 | KS6 |
| | | KS7 | KS9 |
| | | KS10 | |
| 3 | Work as a team member on a live sound event and understand the roles of the associated team members. | KS2 | KS3 |
| | | KS8 | |
| | | | |
| 4 | Apply the procedures and techniques for producing and engineering live events to a professional technical and creative standard. | KS4 | KS5 |
| | | KS9 | |
| | | | |

| Transferable/key skills and other attributes |
| --- |
| The ability to interpret technical specifications<br>Problem solving in a work based environment<br>Ability to work as part of a team<br>Communication skills |

| **Derogations** |
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| None |

| **Assessment:** |
| --- |
| 1. The student will conceive and design a sound system for a given application. The design will cover all aspects of the application from the supply of the components to any health and safety considerations.<br><br>2. The student will work as part of a small team that will build and operate a medium scale public address system. This will be assessed through a practical timed test of installing a live sound rig that needs to be fit for the given technical specification. The timing will be comparable to that expected in an industrial situation. |

| Assessment number | Learning Outcomes to be met | Type of assessment | Weighting (%) | Duration (if exam) | Word count (or equivalent if appropriate) |
| --- | --- | --- | --- | --- | --- |
| 1 | 1,2,4 | Project | 70% | | 2000 |
| 2 | 3 | Simulation | 30% | | 30 minutes |

| **Learning and Teaching Strategies:** |
| --- |
| The module will be presented as a series of lectures linked to practical sessions with the associated equipment.<br>Seminars will be conducted to explore the applied use of the technology.<br>Group collaboration will be encouraged to emphasise the importance of teamwork within the live sound industry. |

| **Syllabus outline:** |
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| Live systems in context<br>Health and safety<br>System topography<br>Live mixing consoles (digital and analogue)<br>Graphic equalisation<br>Crossovers and loudspeaker system control |

Low frequency transducers
High frequency transducers
Line Array
Computer modelling and control
System calibration and optimisation
System measurement utilising FFT

**Bibliography:**

**Essential reading**

Davis, D. Patronis, E, (2006) Sound System Engineering. Focal Press.
Eargle, J. Foreman, C. (2008) Jbl Audio Engineering for Sound Reinforcement . Kendrick Books.
Gibson, B. (2011) The ultimate live sound operators handbook . Hal Leonard Books.

**Other indicative reading**

Audio Engineering Society – Journal and e-Library http://www.aes.org

Davis, G. Jones R, (1990). Sound Reinforcement Handbook. Hal Leonard.

Stark, S (2002). Live Sound Reinforcement; Hal Leonard