# Data-Driven Music Performance and Composition (PhD)

https://musicanddance.uoregon.edu/

Please visit the Music Technology Graduate Program (https://musicanddance.uoregon.edu/music-technology-graduate-program/) page for more information.

## Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate substantial skill and knowledge related to real-time performance and composition of electroacoustic music with data-driven musical instruments,
- Demonstrate substantial skill and knowledge related to design and fabrication of data- driven musical instruments.
- Demonstrate substantial skill and knowledge related to data- mapping strategies and techniques.
- Demonstrate substantial skill and knowledge related to sound synthesis techniques.
- Demonstrate substantial skill and knowledge related to data-driven instrumental performance techniques.
- Demonstrate substantial skill and knowledge related to data sonification techniques.

| Code | Title | Credits |
|---|---|---|
| MUS 611 | Research Methods in Music | 3 |
| MUS 665 | Music in the 20th Century | 3 |
| Artist/Brand Development Course(s) [1] | | 3 |
| PPPM 522 | Grant Proposal Writing | |
| PPPM 572 | Creative Placemaking | |
| PPPM 623 | Professional Development | |
| HPHY 684 | Kinematics of Human Movement | |
| Aesthetics and Design Course(s) [1] | | 3 |
| ARTS 591 | Methodologies: [Topic] (Topic Installation) | |
| ARTD 513 | Emerging Technologies | |
| ARTD 563 | Communciation Design | |
| Cultural Discourse Course(s) [1] | | 3 |
| WGS 521 | Bodies and Embodiment | |
| WGS 511 | Feminist Praxis | |
| WGS 532 | Gender, Environment, and Development | |
| WGS 550 | Literature and Feminist World-Making | |
| MUS 551 | Introduction to Ethnomusicology | |
| JCOM 624 | Strategic Communication: [Topic] (Introduction to Social Virtual Reality) | |
| MUS 562 | Popular Musics in the African Diaspora | |
| SOC 545 | Sociology of Race and Ethnicity: [Topic] (Topic Race Big Picture) | |
| SOC 555 | Issues in Sociology of Gender: [Topic] (Topic Issues in Sociology of Gender) | |
| SOC 542 | | |
| JCOM 511M | US Film Industry | |
| COLT 550 | Comparative Studies in Cinema: [Topic] | |
| MUE 639 | Pedagogy and Practicum: [Topic] | 3 |
| MUS 693 | Oregon Electronic Device Orchestra | 2 |
| MUP 765 | Music Performance Studies: [Topic] (Performance with Data-Driven Instruments (at least 6 terms)) | 24 |
| MUS 550 | Sensor Music | 3 |
| MUS 570 | History of Electroacoustic Music | 3 |
| MUS 571 | Musical Performance Networks | 3 |
| MUS 579 | Data Sonification | 4 |
| Elective Courses | | 9-12 |
| Recital [2] | | |
| Portfolio [3] | | |
| Comprehensive Exam | | |
| MUS 603 | Dissertation [4] | 18 |
| Public Lecture & Oral Defense of Dissertation | | |
| **Total Credits** | | **84-87** |

[1] Chosen in consultation with faculty advisor that are contained on the menu of approved courses for the degree. The course menu is intended to evolve and update over time. Other courses are possible through a petition to faculty.

[2] A solo recital containing five original electroacoustic compositions to be performed with data-driven instruments that employ a variety of interface devices as the front-end to the data-driven instrument. The expected total duration will be approximately one hour. Degree recital must occur prior to the comprehensive exam.

[3] The portfolio is comprised of six original electroacoustic compositions performed by the candidate and documented with excellent audio/video recordings. Each composition in the portfolio must be musically substantial and well-executed in the documentation. All of the compositions of the portfolio must have received a public performance. Only one of the portfolio compositions may include other musical performers. The videos of the six works should be created as studio productions and not produced from recordings of live performances (except in cases when audience impact is vital to the work itself).

[4] The dissertation will be comprised of 1) an original large-scale computer music composition of a substantial and ambitious scope that is at least fifteen minutes in duration, that is performed with a data-driven instrument, and that is documented with a high- definition audio video recording; 2) the original software that contributes to documentation of the composition and that forms an essential component to the data-driven instrument; and 3) a text document that analyzes and describes the composition and the data-driven instrument.

Same as university's residency requirement. See Division of Graduate Studies section of this catalog.