

**MUCO 572: Comparative Analytical Techniques: Spectral Music (2 units)**  
**MUS 303**

Spring 2017, Thornton School of Music

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| **office hours:** by appointment

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**COURSE DESCRIPTION**

This course will follow the development of spectralism in the 20<sup>th</sup> and 21<sup>st</sup> centuries. Spectral music – in the most general sense – is music that focuses on timbre above all other musical parameters, and derives its musical material from the acoustic properties of sound itself (sound spectra), the overtone series, electronic music techniques, and psychoacoustics. Though spectralism was initially developed by a small group of young Parisian composers in the 1970's, its influence has since spread around the world, seemingly achieving wider use and acceptance with each new generation of composers. Over the semester, we will consider the different ways composers have incorporated these ideas into their music.

\* This course is concerned both with the aesthetics and the rigorous analysis of spectral music. It will sometimes involve (fairly straightforward) math.

**Course Materials**

Scores, recordings, and readings will be distributed throughout the semester via Blackboard and in-class handouts. There is no textbook.

**Grading**

Attendance/participation	10%
Weekly readings/assignments	30%
Final paper	40%
Final presentation	20%

**Weekly Readings and Assignments**

Each week, students will be assigned listening/score study, readings, and/or assignments. It is important that students do the required listening and reading prior to each class, as the lectures and discussion will assume that students have done the work.

**Attendance/participation**

As the class only meets once per week, it is important to attend every lecture. If you need to miss class due to illness/important performances/etc. please keep the professor informed, and make sure to get notes from a classmate.

## **Final Paper and Presentation**

The last unit of the course will be devoted to in-class presentations. These topics will be chosen in consultation with the professor. There will be considerable flexibility as to what these projects are about so that they can best suit your individual interests as composers, performers, and musicologists. Options include the following:

- 1) Anyone may write an analytical paper and present it to the class;
- 2) Composers may compose music which makes use of techniques/ideas discussed in the course and explain their work in their presentation;
- 3) Performers may learn a work of spectral music, perform it, and discuss it from an analytical and performative perspective;
- 4) Composers and performers may collaborate (combine #2 and #3) and present together. This kind of collaboration is highly encouraged! (As of the printing of this syllabus, 8 composers are enrolled in the course, along with at least a few composer-performers.)

More detailed instructions about these assignments will be distributed later in the semester.

## **SCHEDULE**

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### **UNIT I: INTRODUCTION TO SPECTRALISM**

#### Week 1: Course introduction; background of spectralism and basic concepts

The historical, aesthetic, and philosophical arguments for spectralism. Its reaction to serialism. The articles and manifestos of Gérard Grisey, Tristan Murail, and Hugues Dufourt. Foundational concepts: Fast-Fourier Transforms, Helmholtz, the overtone series, a frequency-based approach to music.

#### Week 2-4: Early spectral works and an introduction to core spectral techniques

Detailed analysis of Grisey's *Partiels* and Murail's *Desintegrations*. Discussion of techniques including instrumental synthesis, ring modulation, frequency modulation, harmonicity/inharmonicity, derivation of beating patterns from intervallic content, interpolation, and mutation.

#### Week 5-6: Early spectral music in Romania, Italy, the UK, and the US

Horatiu Radulescu, James Tenney, Salvatore Sciarrino, John Chowning, Jonathan Harvey. Radulescu's "families" of spectra, spectral scordatura, and the "function" of new microtonal intervals derived from the relationships of extremely high partials.

Week 7: Spectral Progenitors – The increasing importance of timbre over pitch in the late 19<sup>th</sup>/20<sup>th</sup> centuries as seen through the music of Wagner, Debussy, Varése, Ligeti, Stockhausen, and Scelsi. (Analytical focus will be on Scelsi, as students have undoubtedly already studied the music of the other three composers.)

## **UNIT II: THE NEXT GENERATION AND AN OPENING UP OF SPECTRAL TECHNIQUES**

Week 8: Claude Vivier, and emancipating spectral techniques from spectral “style”  
The techniques, influences, and aesthetic of Vivier’s *Lonely Child*.

Week 9: Georg Friedrich Haas  
*In Vain* and *Limited Approximations*.

Week 10: SPRING BREAK (March 16)

## **UNIT III: SPECTRAL TECHNIQUES APPLIED TO OTHER GENRES AND THE EFFICACY OF GENRE-MIXING**

Week 11: Spectral postminimalism in the music of Donnacha Dennehy  
Analysis of *Grá Agus Bás*. Genre-mixing and the issues surrounding the combining of different musical languages (in this case, postminimalism, folk music, and spectralism).

Week 12: Spectral Jazz  
The works of Steve Lehman. Continuation of the discussion around hybrid genres. What are the mechanisms that seem to lead to the success or failure of hybrids? Can certain musical languages/techniques be combined more successfully than others?

## **UNIT IV: IN-CLASS PRESENTATIONS**

Week 13-15: Student Presentations

\*\*If time permits, the music of other composers for whom spectral techniques play an important role (such as Kaija Saariaho, Marc-André Dalbavie, Magnus Lindberg, and Salvatore Sciarrino) will also be discussed. Students are encouraged to select some of these composers as topics for their presentations.\*\*

**A (Partial) List of Composers Who Often Use Spectral Techniques**  
(This may be a helpful aid when selecting the topic of your final paper)

Julian Anderson (UK)  
Ana-Maria Avram (Romania)  
Clarence Barlow (India/UK/US)  
George Benjamin (UK)  
Marc-André Dalbavie (France)  
Donnacha Dennehy (Ireland/US)  
Hugues Dufourt (France)  
Iancu Dumitrescu (Romania)  
Joshua Fineberg (US)  
Georg Friedrich Haas (Austria/US)  
Philippe Hurel (France)  
Gerard Grisey (France)  
Steve Lehman (US)  
Michael Levinas (France)  
Fabien Lévy (France)  
Magnus Lindberg (Finland)  
Tristan Murail (France)  
Horatiu Radulescu (Romania)  
Fausto Romitelli (Italy)  
Kaija Saariaho (Finland)  
Salvatore Sciarrino (Italy)  
James Tenney (US)  
Christopher Trapani (US/France)  
Ken Ueno (US)  
Claude Vivier (Canada/France)

## Statement on Academic Conduct and Support Systems

### **Academic Conduct**

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards*: <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage <http://sarc.usc.edu> describes reporting options and other resources.

### **Support Systems**

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali> which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs*: [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.