Course Calendar Description

Continued study of the terminology and technology of electronic music. Historical development, musique concrète, the "classical" studio, the synthesizer, and computer applications. Survey of the literature with some analysis. Compositional techniques and notation peculiar to electronic music and its real time performance.

Antirequisite(s): Music 3695
Prerequisite(s): Music 2695A/B, and either Music 2629, or music 1629A/B

Extra Information: 3 hours, 0.5 course

Please note that prerequisites are no longer automatically checked prior to course registration. It is the responsibility of each student to ensure that he or she has the specified prerequisites. Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Meetings
- Lecture Tuesday 1:30-3:20 CEARP, TC344C – or online
- Tutorial TBD by class TBD by class CEARP, TC344C – or online

Instructor Dr. Jason Stanford jstanfo@uwo.ca TC 334
Office Hours: by individual appointment

Graduate Assistant Rashaan Allwood rallwood@uwo.ca TC331

Learning Outcomes

Upon completion of this course students will not only be able to discuss, in detail, technical and technological notions related to the use of technology in music applications, but they will also have gained transferable skills in the application of specific technologies through the creation of original compositions for instruments and/or voices combined with electro-acoustic sound and/or live electro-acoustic sound processing.

Through hands-on practical assignments and projects students will gain a high level of proficiency and technical fluency in utilizing software and hardware within the CEARP studio and in the staging of the year-end electro-acoustic music concert.

Students will gain a deeper understanding of significant electro-acoustic music compositions from the repertoire through listening, discussion, and analysis.

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Course Activities

The activities of the course may include active reduced listening, discussion, and analysis of repertoire and recordings, weekly in-class presentations of assignments and work-in-progress, one major term compositions of substantial proportions, and the (potential) presentation of this major composition live in concert.

Compositions

Most time and energy will be spent on the composition of one major electro-acoustic work, during the term. This substantial composition will include a live performance element. Compositions will be undertaken individually by each student in consultation with the instructor and TA.

For each piece, in addition to all audio files, Pro Tools (or other DAW) Sessions, and Max patches, students will submit a bound score (if appropriate) that includes fully notated music for instrumentalists/vocalists, graphics/tablature for real-time MIDI controllers and/or synthesizers, technical details and instructions including: diagrams of staging, control/signal schematics and an explanation of all data and signal processing utilized in the work. The goal of this score is to document for others how to perform your composition in the future.

Electroacoustic Music Concert

Due to the extraordinary conditions and restraints presented by the outbreak of COVID-19 on the ability of the Faculty of Music to present its regular schedule of publically-held concerts, the students of Music 3696B (partnered with students of Music 9533B) may present a reduced in-person annual concert of newly composed electro-acoustic music compositions without audience in early April subject to any and all health and safety restrictions imposed by the University and the Province of Ontario. More details about the potential electro-acoustic music concert will follow closer to the end of term in March 2022.

Students are required to participate in the setup and sound check for the Electroacoustic Music Concert in April, 2022. Students are also required to participate in the moving of gear from CEARP to PDT, the setup, the sound check, and the dress rehearsal prior to the concert and to also assist in the striking and moving of gear to CEARP after the concert. Moving gear, setup, and dress rehearsal will commence at 9am on the day of the concert in Paul Davenport Theatre. Students will be responsible for promoting the event. This is an all-day activity and will take place from approximately 9am to 9pm.
Studio Time

Subject to COVID restrictions. In a typical year each student can reserve a minimum of 2 hours/week of studio time for independent work. Additional studio time can occur on a first come, first served basis. Students can sign-up for time on the TC344C Schedule on OWL. Spontaneous use of CEARP is permitted on a drop-in basis, if you come to CEARP and find booked studio time is not being used, you may use it until such time as the person comes to claim their time. If you are not going to use your studio time, please be considerate and log into OWL to delete the single instance of your time you are not going to use. The schedule is monitored on a weekly basis to ensure equity and fairness in the use of studio time.

Attendance is mandatory (10% of final grade) and will ensure adequate progress in this course. Students are required to sign an attendance sheet for the Tuesday 2-hour lecture and a 1-hour tutorial session each week. Attendance is taken at every meeting, and students are required to initial on the attendance form.

The key to success in this course is regular work, if you invest the time, you will understand key concepts and be able to effectively apply these concepts to your own work.

Assignments may be given verbally, or in writing during lectures. Some assignments require students to demonstrate skill and facility in the use of specific hardware and/or software.

Please do not underestimate the time required to master hardware and software concepts to the point of being able to wield these resources creatively. Progress comes from regular work, from signing-up and utilizing your available time in CEARP. Believe me when I say that you cannot cram in order to demonstrate creative or technical facility through hardware/software.

Course Materials and Resources

Textbooks
There is no textbook for this course, rather, any readings will be drawn from a variety of different resources, and will be made available online.

Notebooks
There will be a lot of hand-outs for this class, and to keep these hand-outs together, please utilize a 3-ring binder.

In addition to a binder, you will find that a notebook will come in handy to jot down important points from lectures/tutorials, as well as to keep a record of your own technical and creative experiments. Notebooks work best when entries are clearly dated.
A class notebook is an important learning tool, since it will contain:

- Salient points about techniques, methods, musical works, and other concepts presented and discussed during lectures
- Your own proposals and/or objectives – the purpose of your work session in CEARP: what concepts you wish to explore or what goals you wish to attain during each studio session
- Observations, thoughts, considerations, hypotheses, conclusions
- Results of experimentation: what ideas worked, what ideas did not work, what outcomes were achieved
- New proposals/objectives/hypotheses to test based upon new evidence
- What to try or explore during the next session
- An activity journal of your technical and creative will aid students in troubleshooting and debugging techniques, you will be able to look back and see your charted progress over the course of the semester

**Listening List**
The evolving listening list for the course will be available online and on the Mac Pro in the CEARP studio as uncompressed .WAV audio files.

Hardware and software manuals in PDF format are located on the manufacturer’s website, or available as HELP files/tutorial files within the programs themselves.

**Storage Media**
Unexpected hardware/software failures can and do occur without warning – regular backup of data is mandatory. The University will not be responsible for damaged or lost data. **Typical requirements per student may include the following: USB memory stick (USB3 large capacity – 16-32GB are inexpensive to purchase).**

**Optional Materials**

**Software**
Most of the practical and creative work in this course is completed using either: the Digital Audio Workstation (DAW) **Avid Pro Tools**, or in the object-oriented programming environment **Max8** (formerly Max/MSP) by Cycling’74.

Although you are not required to purchase either title for this course, both are available for use in CEARP, it is strongly encouraged that students purchase their own license of Max/MSP (even a 4-month subscription will allow you to work independently).

**Avid Pro Tools is available for purchase directly from Avid as either a yearly subscription for $99 US, or a monthly subscription for $9.99 US/month.**

Max8 is available for purchase at a discounted academic price ($250 US one-time purchase) or you can purchase a 12-month student license for only $59 US, or $9.99 US/month. [https://auth.cycling74.com/purchase#educational](https://auth.cycling74.com/purchase#educational)

By default, OSX disk drives are formatted in the HFS+ file system while computers running Windows 10 use the NTFS file system by default. Most USB thumb drives use the FAT file system by default. If you require your USB stick/hard drive to go back-and-forth between operating systems, if given the choice, you should format your storage device with the exFAT file system, as exFAT is both readable and writeable by OSX and Windows 10, and it does not have the file size limitations of the FAT file system (aka FAT16 has a 4GB file size limit).

Accurate, quality reference monitoring is required for this course; although not required it is strongly recommended that students obtain a professional-quality pair of WIRED over-the-ear headphones* to provide clear and accurate aural feedback while working on practice-based assignments and projects. Proper monitoring goes hand-in-hand with the critical listening skills that will develop throughout this course.

*Please see separate hand-out for suggestions professional quality headphones.

### Requirements, Dates, and Evaluation

Compositions will be graded on technical and creative merits. Grading of compositions will consider the creativity and originality of the project in regards to the treatment of form, structure, register, sonority, dramaturgy, et cetera, as well as the level of sophistication and refinement in the use of hardware and software within the composition.

- **Term Composition (approximately 7-10 minutes)** 50%
- **Term Composition Installments/Weekly Assignments (8 x 5% each)** 40%
- **Attendance, Preparation, Participation** 10%

- Classes may be delivered face-to-face in reduced class size pods, and/or online due to any current or future COVID-19 lock-down. This policy is in line with Western University’s policies which is in lockstep with the Province of Ontario.
The 1-hour lab session may be delivered in a number of different ways depending upon the perceived needs of the class as a whole. Tutorial sessions may take the form of an additional lecture, a group in-person and/or online drop-session, an individual consultation/drop-in session either in-person and/or online, or any combination of the previously mentioned options.

Note that Music 3696B in 2022 while not originally intended to be a blended course, but due to a COVID resurgence has become a necessity one - for the time being - in which much of the material and coursework is delivered and completed online independently by students on their own computer.

Please see Appendix A regarding Contingency Plans in case of a resurgence of COVID-19

Please see Appendix B regarding required Online Etiquette

Please see Appendix C regarding Recording of Online Activity

Consultation with the Instructor during the process of composition is a requirement. The Instructor must see sufficient work-in-progress especially as deadlines of the term and concert approach. Additional times are available upon request, subject to the availability of the Instructor.

Students will receive graded work worth no less than 15% at least 3 days prior to the deadline for withdrawal without academic penalty. This year, the date by which students will receive at least 15% of their grade in this course is March 15, 2022. Students can find details about this academic policy here:


Please note, students who receive academic accommodation for the assignments on which these grades are based may not receive feedback in time to meet this deadline. Students are responsible for ensuring that they are aware of the grades they have received in their courses.

Software

Whenever possible, this course will utilize software titles available for use by students in and out of class time in CEARP. Additional software may be utilized for the purpose of instruction and/or for student projects it is the responsibility of the student to purchase the requisite license(s) in order to use any software titles not provided by CEARP. Many software vendors provide deeply discounted academic licenses/subscriptions for undergraduate students.
Online Delivery by Students of Coursework to the Instructor for Assessment

In order to facilitate the timely and organized assessment and returning of student coursework please follow these best-practices for the submission of online coursework listed below.

Failure to follow the outlined procedures for the online delivery of completed coursework may result in avoidable delays, and it may render the work non-assessable. Be sure to follow the required file list on each assignment whether the submitted material takes the form of Word documents, PDF files, audio files, or software specific files such as Garage Band .band files, Pro Tools Session File Folders (not just the .ptx file), Max8 patches, Adobe Audition .sesx Session Files, et cetera.

Complete files and their accompanying session folders (if any) MUST be sent to the instructor in a single email attachment (or if file size is too large to be an attachment, you will be prompted to upload the file(s) to OneDrive).

Failure to provide the instructor with a complete set of files and their accompanying contingencies (audio files, video files, et cetera) may result in the assignment not being assessed fully or at all, and the student risks receiving a grade of 0 (zero) on the assignment.

In addition to following the above provisions for online delivery of coursework to the instructor for assessment, the student must clearly and properly name their coursework consistently in the following manner.

Below is a hypothetical example:

Student Name: Jane Smith  
Course-Year: MUS3696B-2022  
Assignment: Creative_Assignment_1

Example naming convention for a .maxpat file created in Max8:

Surname | Given Name | Course Name | Assignment Name

Smith_Jane_MUS3696B-2022S_Creative_Assignment_1.maxpat

Failure to follow this immediately identifiable naming convention may cause issues with delivery and assessment, and as mentioned previously, may result in the assignment not being assessed fully or at all, and the student risks receiving a grade of 0 (zero) on the assignment.
Late Submission Policy
Late written work, Max/MSP patches, and Pro Tools sessions, will only be accepted under the circumstances listed below.

Compositions will only be accepted after the due dates under extenuating circumstances, including documented medical or compassionate grounds, or if accommodation has been requested and received prior to the due date. Unfortunately, a Term Composition that is submitted late cannot be included on the Electroacoustic Music Concert, the student will lose a very important practical learning opportunity, and as a result, potentially a lower grade.

Notes
1.) The prerequisite for this course is successful completion of Music 2695A/B, and either Music 2629, or music 1629A/B. If you do not meet the prerequisites for this course or obtain special permission from your Dean to enroll then you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to meet the prerequisites.

2.) Grading scale for all aspects of the course is A+=90-100%, A=80-89%, B=70-79%, C=60-69%, D=50-59%, F=0-49%.

3.) The presentation of curricular materials in this class may occasionally deviate from the timetable of presentation in the provided class schedule as necessary depending on the progress of the class through the course materials. At times, we may dwell longer on certain topics or course materials as necessary. The Course Schedule for Music 3695B is provided as a general guide through the materials and topics to be covered within this course.

4.) Students are responsible for making up any missed classes or assignments as soon as possible. In order to ensure fairness and consistency for all students, academic accommodation for work representing more than 30% of the student’s overall grade in the course shall be granted only in those cases where there is documentation in the form of a completed and appropriately signed Student Medical Certificate (SMC) indicating that the student was seriously affected by illness and could not reasonably be expected to meet his/her academic responsibilities, or the equivalent documentation for non-medical or compassionate grounds.
Students seeking academic consideration must communicate with their instructors no later than 24 hours after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence, to clarify how they will be expected to fulfill the academic expectations they may have missed during the absence. Documentation, if required, shall be submitted to the Office of the Associate Dean, Undergraduate (TC210).

Note that the new Self-Reporting Absence Portal may not be used for requesting academic relief for work worth more than 30%, or for Final Exams scheduled during the official examination period. Students are directed to read the full Senate policy on accommodation for medical illness at the following website: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf

A pdf copy of a Senate approved Student Medical Certificate (SMC) may be downloaded here: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

5.) In cases where students miss work that is worth 30% or less of the total course grade due to medical illness or compassionate grounds, if an online absence report is submitted using the new Self-Reporting Absence Portal, or if documentation is voluntarily submitted to the Associate Dean’s office and the Associate Dean deems that accommodation is warranted, then the missed assignment(s) or quiz(zes) may be discounted in the calculation of the final grade for the course. If documentation is not submitted voluntarily then the missed assignment(s) or quiz(zes) will receive a grade of zero.

6.) At least three days prior to the deadline for withdrawal from a 1000- or 2000-level course without academic penalty, students will receive assessment of work accounting for at least 15% of their final grade.

7.) Students who are in emotional/mental distress should refer to Mental Health@Western at the following website https://www.uwo.ca/health/mental_wellbeing/ for a complete list of options about how to obtain help.

8.) Students may be excused to observe a religious holy day of their faith without penalty provided they notify the instructor in advance. Students are responsible for material covered in their absence and each student shall be permitted a reasonable amount of time to make up missed work.

9.) If you require academic accommodations because of a disability, please let the instructor know during the first week of classes, and, if you have not done so already, register as soon as possible with Accessible Education (formerly known as Services for Students with Disabilities). You can learn more about the Student Success Centre’s services for accessible education at http://success.uwo.ca/academics/sas/index.html.

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10.) Hand in assignments to the instructor at the beginning of class on the day for which the assignment is due. Never leave completed assignments in the faculty mailboxes in the main office nor slide them under the instructor’s door. Acceptance of late assignments will be at the discretion of the instructor and only if extenuating circumstances prevail; otherwise late assignments will NOT be graded!

11.) Complete assignments neatly using a clear and organized approach within software utilized for each project (Pro Tools or Max8, or both). Max8 patches are to be clearly and neatly organized in a manner that demonstrates signal/control flow. Submitted Pro Tools sessions are to be well-organized, with any extraneous, un-used materials/tracks removed from the final version submitted for assessment by the instructor.

12.) Plagiarism: Complete assignments independently. Submission of work with which you have received help from someone else (other than the course instructor or TA) is an example of plagiarism. Plagiarism is a major academic offence. Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

13.) The in-class use of electronic devices (other than for accessing OWL materials for this class) is expressly prohibited. Students guilty of disrupting class with electronic devices will be asked to leave the class and will not be permitted to re-enter the class with their device until they can satisfactorily prove to the instructor that their device will no longer be a disruption.

**Studio and Technical Support Policies and Procedures**
Only students enrolled in Music 3696B are permitted to be in CEARP, no other individuals are to be permitted access to CEARP with you. Instrumental musicians who are performing your works (or are participating in a sound recording session for 3696B projects) are permitted in the studio.

Students **must** be respectful and considerate of their fellow colleagues by leaving the studio/lab in a clean and usable condition for the next user, and report any hardware/software technical problems immediately.

***Absolutely*** no food or liquids are allowed in CEARP. Unexpected spills can end the life of an expensive piece of studio hardware while food and crumbs attract insects and rodents.

**Technology**
Please turn off all mobile devices during lectures. Laptops or tablets are only permitted if they are being used as study aids, and if prior accommodation for their use has been requested and granted.
COVID-19-Related Subjects
For students who elect to participate in in-person instruction, or to work within the CEARP facility, the instructor will provide the adequate precautions and cleaning equipment and instruction in their use prior to working in CEARP and upon leaving CEARP – leaving the facility clean and dis-infected for the next individual.

COVID-19 Related Medical Accommodation
If a student has been contacted by the Middlesex-London Health Unit (MLHU) to self-quarantine due to a Covid-19-related situation, then the Self-Reported Absence system is not to be used to report this absence or to request an academic accommodation. The student should contact the Academic Counselling office as soon as they are notified.

Students are advised to not self-determine when to self-isolate. Unless directed by the MLHU students should go about their business as usual. But if a student chooses to self-isolate due to a suspected Covid-19-related situation while waiting to receive direction from the MLHU then the student is directed to contact the Academic Counseling office as soon as possible for further direction on receiving accommodation consideration.

Social Distancing and PPE Policy
We are all in this together. Please respect yourself and your fellow students by complying with the safety protocols established by the University to contain the spread of COVID-19.

Students must comply with the health and safety protocols in order to participate in face-to-face instruction on campus. If students fail to comply with these established protocols they will not be permitted entry to on-campus classes. These protocols include wearing appropriate face covering, maintaining social distancing, and completing the on-campus health survey.

In the unlikely event a student removes face coverings or fails to maintain social distancing during the class that student will be asked to leave immediately. These policies are subject to change and amendment at any point by the University, and any amendments must be strictly adhered to by all students while on campus.

Logbook
CEARP has a logbook, and you are required to sign-in and sign-out in the logbook every time you use CEARP. The logbook has space for user comments related to the technical operations of the lab. If equipment fails, please:

1) enter general information about the malfunction into the log book
2) report the malfunction by immediately emailing the instructor
While equipment is in service, it is usually unavailable for use, during which time students are expected to pursue related kinds of artistic investigation and experimentation in the studio.

**Safety Information**

If a small fire starts in the vicinity of TC344C and is no larger than a basketball, turn off the two switches that power the equipment; you may attempt to extinguish the fire with the fire extinguisher or by smothering it. If the fire is not limited to a small area, or if you are unfamiliar or unsure how to use a fire extinguisher, or if you have failed in your attempt to extinguish a small fire, you should get out and stay out. Never enter a room if you suspect a fire inside. Upon detection of smoke and/or fire, follow the **R-A-C-E** plan:

- **R**escue/Remove person(s) from the immediate fire scene/room
- **A**lert personnel by activating the nearest fire alarm pull station and call 9-1-1
- **C**onfine fire and smoke by closing all doors in the area
- **E**xtinguish a small fire by using portable fire extinguisher or use to escape larger fire

Evacuate the building immediately and, once outside, report to your supervisor, Building Emergency Team, or Emergency Personnel.

The local First-Aid Station (for minor injuries) is located in the Music Library.
### Key Dates 2022

[Visit the Key Dates page](https://www.uwo.ca/stats/undergraduate/key-dates.html)

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Appendix A: COVID-19 Contingency Plans

In the event of a COVID-19 resurgence during the course that necessitates the course delivery move away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any remaining assessments will also be conducted online at the discretion of the course instructor.

Appendix B: Online Etiquette
Taken From the University Senate Protocol for Zoom Meetings

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

• please “arrive” to class on time
• please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
• ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
• to minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise
• In order to give us optimum bandwidth and web quality, please turn off your video camera for the entire class unless you are invited to speak
• please be prepared to turn your video camera off at the instructor’s request if the internet connection becomes unstable
• unless invited by your instructor, do not share your screen in the meeting

The course instructor will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

• if you wish to speak, use the “raise hand” function and wait for the instructor to acknowledge you before beginning your comment or question
• remember to unmute your microphone and turn on your video camera before speaking
• self-identify when speaking.
• remember to mute your microphone and turn off your video camera after speaking (unless directed otherwise)

General considerations of “netiquette”:

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Keep in mind the different cultural and linguistic backgrounds of the students in the course.

Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.

Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. “Flaming” is never appropriate.

Be professional and scholarly in all online postings. Cite the ideas of others appropriately.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

**Appendix C: Recording of Online Activities**

All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Individual or group meetings (in-person online) for the purposes of reading, rehearsing, or performing any creative assignments or projects (in part, or in full) may be recorded. Please obtain consent of all participants (if performers/musicians are not enrolled in this course) before proceeding with the recording of any portion of any meeting.

Any and all recordings are made for use in this course alone, and under no circumstances may these recordings be distributed through any public or private network, platform, or channel.