Class Schedule | Fall 2026

Generated November 23, 2026

Undergraduate Subjects

Course	Type	Instructor	Days	Time	Location
21M.080 Introduction to Music Technology	Lecture	Ian Hattwick	MW	12:30pm-2pm	W18-1311
3-0-9 units. HASS-A Investigates how technology is used in the analysis, modeling, synthesis and composition of music, and its contribution to the artistic production practice. With an eye towards historical context as well as modern usage, topics include the physics of sound, digital representations of music, the Digital Audio Workstation (DAW), analog and digital synthesis techniques, MIDI and sequencing, electronic instrument design, notation software, generative music systems, and computational analysis of music. Weekly assignments focus on both theory and practice, requiring technical proficiency, creative output, and aesthetic consideration. Students taking graduate version complete different assignments. Enrollment limited.					
21M.361 Electronic Music Composition I	Lecture	Pascal Le Boeuf	TR	2pm-3:30pm	W18-1311
2-1-9 units. HASS-A Students develop basic skills in composition through weekly assignments focusing on sampling and audio processing. Source materials include samples of urban/natural environments, electronically generated sounds, inherent studio/recording noise, and pre-existing recordings. Audio processing includes digital signal processing (DSP) and analog devices. Covers compositional techniques, including mixing, algorithms, studio improvisation, and interaction. Students critique each other's work and give informal presentations on recordings drawn from sound art, experimental electronica, conventional and non-conventional classical electronic works, and popular music. Covers technology, math, and acoustics in varying detail. Students taking graduate version complete different assignments. Limited to 15 per section; ; preference to Music Technology graduate students, Music majors, minors, and concentrators.					
21M.369 Studies in Music Technology: Tuning Attention: Creative Practices in Movement, Sound, and AI	Lecture	Grisha Coleman, Cheng-Zhi Anna Huang	W	1pm-4pm	W97-269
	Lab	Grisha Coleman, Cheng-Zhi Anna Huang	F	12pm-1:30pm	W97-269
This class proposes that the study of sound and movement practices can inform how we build and envision computational systems, focusing particularly on our relationship to AIs. This course explores computational and humanistic approaches to alignment; *tuning* AI systems while exploring our capacities for expression. We introduce students to a range of movement and music practices in improvisation and somatics, and include motion capture technologies, critical interaction design, generative modeling, and algorithms for interpretability and learning through human feedback. We explore metaphoric, material, and process based synchronicity across learning systems.					
21M.370 Digital Instrument Design	Lecture	Ian Hattwick	MW	2pm-3:30pm	W18-1311

Course	Type	Instructor	Days	Time	Location
3-6-3 units. HASS-A Covers aesthetic and technical challenges in the creation of physical interfaces for musical performance. will engage in the design and creation of musical interfaces, and learn how to incorporate new technologies in their artistic practice. Topics covered include user experience design for artistic performance, musical human-computer interaction (HCI), hardware and software standards for digital musical systems, embedded programming and sound synthesis, analog and digital sensors, rapid prototyping and digital manufacturing, and creating performance practices around custom hardware. Students design and build their own digital musical instrument, and present a performance with the instrument as their final project. Students taking graduate version complete different assignments. Limited to 18.					
21M.385 Interactive Music Systems	Lecture	Eran Egozy	TR	11am-12:30pm	4-270
3-0-9 units. HASS-A Explores audio synthesis, musical structure, human computer interaction (HCI), and visual presentation for the creation of interactive musical experiences. Topics include audio synthesis; mixing and looping; MIDI sequencing; generative composition; motion sensors; music games; and graphics for UI, visualization, and aesthetics. Includes weekly programming assignments in python. Teams build an original, dynamic, and engaging interactive music system for their final project. Students taking graduate version complete different assignments. Limited to 36.					
21M.389 Studies in Advanced Music Technology and Music Computation: Audio Computing: Processing Sound in Engineering, Science, and the Arts	Lecture	Paris Smaragdis, Mark Rau	MW	11am-12:30pm	4-270
This class will cover an extensive range of topics that relate to sound and vibration analysis, focusing on computational tools needed to process such data, and exploring applications in various disciplines. Material covered will include basic signal processing, vibration and acoustical simulations and measurements, machine learning audio, microphone and speaker arrays, signal enhancement and restoration, and psychoacoustics. Applications will be drawn from fields including music, phonetics, mechanical and electrical engineering, architecture, medicine, and more. This class will cover applications such as 3D audio, classifiers for sound events, basic speech recognition, auto-tuners and other music production tools, audio compression, modeling of voice, instruments and rooms, real-time audio applications, denoising and source separation, and how to localize and isolate sounds. Students taking the graduate version will complete additional assignments.					
21M.470 MIT Laptop Ensemble	Lecture	Ian Hattwick	T	7pm-10pm	W18-1311
3-0-3 units Can be repeated for credit. The MIT Laptop Ensemble is a forum for the exploration of emerging digital musical practices, giving ensemble members hands-on experience with compositional and performance strategies based on current research. Concerts by the ensemble include repertoire drawn both from historical electronic and computer music compositions, as well as new compositions by invited composers. Also includes opportunities for ensemble members to compose for and conduct the ensemble. Weekly rehearsals focus on concepts drawn from a variety of 20th- and 21st-century practices, including experimental and improvised music, telematic performance, gestural controllers, multimedia performance, live coding, and interactive music systems. No previous experience required. Students taking graduate version complete different assignments.					

Graduate Subjects

Course	Type	Instructor	Days	Time	Location

21M.517 MIT Laptop Ensemble	Lecture	Ian Hattwick	T	7pm-10pm	W18-1311

3-0-3 units
Can be repeated for credit.

The MIT Laptop Ensemble is a forum for the exploration of emerging digital musical practices, giving ensemble members hands-on experience with compositional and performance strategies based on current research. Concerts by the ensemble include repertoire drawn both from historical electronic and computer music compositions, as well as new compositions by invited composers. Also includes opportunities for ensemble members to compose for and conduct the ensemble. Weekly rehearsals focus on concepts drawn from a variety of 20th- and 21st-century practices, including experimental and improvised music, telematic performance, gestural controllers, multimedia performance, live coding, and interactive music systems. No previous experience required. Students taking graduate version complete different assignments. Admission by audition.

21M.560 Introduction to Music Technology	Lecture	Ian Hattwick	MW	12:30pm-2pm	W18-1311

3-0-9 units. HASS-A

Investigates how technology is used in the analysis, modeling, synthesis and composition of music, and its contribution to the artistic production practice. With an eye towards historical context as well as modern usage, topics include the physics of sound, digital representations of music, the Digital Audio Workstation (DAW), analog and digital synthesis techniques, MIDI and sequencing, electronic instrument design, notation software, generative music systems, and computational analysis of music. Weekly assignments focus on both theory and practice, requiring technical proficiency, creative output, and aesthetic consideration. Students taking graduate version complete different assignments. Enrollment limited.

21M.561 Electronic Music Composition I	Lecture	Pascal Le Boeuf	TR	2pm-3:30pm	W18-1311

2-1-9 units. HASS-A

Students develop basic skills in composition through weekly assignments focusing on sampling and audio processing. Source materials include samples of urban/natural environments, electronically generated sounds, inherent studio/recording noise, and pre-existing recordings. Audio processing includes digital signal processing (DSP) and analog devices. Covers compositional techniques, including mixing, algorithms, studio improvisation, and interaction. Students critique each other's work and give informal presentations on recordings drawn from sound art, experimental electronica, conventional and non-conventional classical electronic works, and popular music. Covers technology, math, and acoustics in varying detail. Students taking graduate version complete different assignments. Limited to 15 per section; ; preference to Music Technology graduate students, Music majors, minors, and concentrators.

21M.569 Studies in Music Technology: Tuning Attention: Creative Practices in Movement, Sound, and AI	Lecture	Grisha Coleman, Cheng-Zhi Anna Huang	W	1pm-4pm	W97-269
	Lab	Grisha Coleman, Cheng-Zhi Anna Huang	F	12pm-1:30pm	W97-269

This class proposes that the study of sound and movement practices can inform how we build and envision computational systems, focusing particularly on our relationship to AIs. This course explores computational and humanistic approaches to alignment; tuning AI systems while exploring our capacities for expression. We introduce students to a range of movement and music practices in improvisation and somatics, and include motion capture technologies, critical interaction design, generative modeling, and algorithms for interpretability and learning through human feedback. We explore metaphoric, material, and process based synchronicity across learning systems.

21M.570 Digital Instrument Design	Lecture	Ian Hattwick	MW	2pm-3:30pm	W18-1311

3-6-3 units. HASS-A

Covers aesthetic and technical challenges in the creation of physical interfaces for musical performance. will engage in the design and creation of musical interfaces, and learn how to incorporate new technologies in their artistic practice. Topics covered include user experience design for artistic performance, musical human-computer interaction (HCI), hardware and software standards for digital musical systems, embedded programming and sound synthesis, analog and digital sensors, rapid prototyping and digital manufacturing, and creating performance practices around custom hardware. Students design and build their own digital musical instrument, and present a performance with the instrument as their final project. Students taking graduate version complete different assignments. Limited to 18.

21M.585 Interactive Music Systems	Lecture	Eran Egozy	TR	11am-12:30pm	4-270

3-0-9 units. HASS-A

Explores audio synthesis, musical structure, human computer interaction (HCI), and visual presentation for the creation of interactive musical experiences. Topics include audio synthesis; mixing and looping; MIDI sequencing; generative composition; motion sensors; music games; and graphics for UI, visualization, and aesthetics. Includes weekly programming assignments in python. Teams build an original, dynamic, and engaging interactive music system for their final project. Students taking graduate version complete different assignments. Limited to 36.

21M.589 Studies in Advanced Music Technology: Audio Computing: Processing Sound in Engineering, Science, and the Arts	Lecture	Paris Smaragdis, Mark Rau	MW	11am-12:30pm	4-270

Studies of a selected topic in music technology requiring substantial prior knowledge of music studies, music technology, and computation. Topics vary. Examples include: computational modeling of music, artificial intelligence and musical creativity, digital signal processing for music, and real-time Internet musical collaboration. Students must have taken at least one prior music technology subject prior to this one. May be repeated for credit with permission of instructor. Students taking graduate version complete different assignments.

21M.590 Colloquium in Music Technology	Lecture	Eran Egozy			TBA

1-0-0 units
Can be repeated for credit.

Presentations of recent work in music research from both academic and commercial spheres. Students prepare to engage with guest speakers by reading and demonstrating understanding of the sphere of work, attend presentations, and reflect on the work. Enrollment limited with priority to graduate students in music technology. May be repeated for credit with permission of the instructor.

21M.595 Music Technology And Computation Research Seminar	Lecture	Eran Egozy			TBA

1-0-2 units
Can be repeated for credit.

Development of a thesis-level project in music technology and computation. Individual meetings with the research director/subject head and with individual thesis advisors, together with group meetings on research techniques, musical thinking, and graduate-level academic writing. Culminates in a submitted prospectus for a graduate project presented to the group. Restricted to SM in Music Technology and Computation students.