

**Electronic Production and Engineering: The  
Study of Music Production, Composition,  
Acoustics and Synthesis**

Class Year: 2020

Cumulative GPA:

Local Address: (Skidmore College) 815 North

Broadway, Saratoga Springs NY, 12866

Advisors: Jill Linz & Anthony Holland

## Table of Contents

Rationale.....	p. 2-4
Core Courses.....	p. 6-7
Elective Courses.....	p. 7-8
Disciplinary Breadth.....	p. 8
Sequence of Courses.....	p. 9-10
Prerequisites.....	p. 10
Elective Courses.....	p. 11-12
Course Schedule.....	p. 13-17
Core Course Descriptions.....	p. 18-24
Elective Course Descriptions.....	p. 25-33
Final Project.....	p. 34-35

# Rationale

I have had a fiery passion for music my entire life. I grew up as a classical pianist, later became a jazz pianist, and have since shifted interests further into recording and producing music, composition, and the science behind sound and music. One thing that excited me about Skidmore College coming in was the Grossman Recording Studio, and I originally pictured myself as a double-major in Music and Computer Science. However, these two programs do not provide all the knowledge and learning I had hoped to gain from my undergraduate college experience. I had a discussion with John Nazarenko - my private lesson and jazz ensemble instructor at the time - about my varied interests, and he provided me with advice moving forward. He hired me as his recording assistant, and I ended up staying at Skidmore over the summer to help run the Grossman studio during the Skidmore Jazz Institute.

Since last year, I have been having constant conversations with multiple professors, primarily Jill Linz (physics), Anthony Holland (music), and John Nazarenko (music), to ensure that I truly want to dedicate myself to a Music Technology-based major. Prof. Linz introduced me to the importance of Physics (as well as Mathematics, Psychology, Management & Business, and Computer Science) in such a major, and opened my eyes to the importance of the subject matter, increasing my interest even more. We have met several times over the past year to brainstorm ideas, talk about past students with similar interests, and put together an appropriate combination of courses.

Music Technology encompasses many different areas and ideas. Rather than just focusing on playing, composing, or studying music theory as with a Music major, it applies these skills to the recording arts and electronic production, as well as incorporating topics like acoustics and

synthesis that bring in aspects of Physics. At the same time, the major does not let go of its artistic and musical elements, so it requires the continued development of musicality and music theory. Other than knowledge of the science and technology of music, I plan to incorporate aspects of Psychology and Business into the major. Psychology provides a view of music from yet another perspective, and goes more in-depth into some of the topics briefly discussed in physics, involving how the brain reacts to certain sounds. I also plan to complement my major with a minor in Management and Business, both because Music Business is another personal interest of mine, and it is important to have at least some background in business as an artist, producer, or engineer. It would provide me with essential skills to be able to work and negotiate effectively with other artists or engineers, and even be able start and build up my own small business or brand, which can be crucial in finding work. Having a solid understanding of money and economics is also essential, and is provided through most courses in the Business Department.

Last semester (Fall 2017) I took Prof. Holland's *Music Technology I* course, which introduced me to a wide range of music production software, provided me with a more classroom-oriented *and* directly hands-on learning approach to working in a recording studio, and helped build my knowledge of specific recording and editing equipment used by musicians and audio engineers. This class was perfect for getting a taste of Electronic Production, with a focus on the artistic and musical aspects taken in the form of weekly creative projects. I am now currently enrolled in *Physics: Sound & Music* with Prof. Linz, along with several other related courses. I look forward to this class in particular introducing me to the technical and scientific aspects of sound, and how it can translate to several different interests and careers. I also look forward to implementing courses in the Psychology department in order to develop a thorough

understanding of how the human brain processes sound, and how that directly relates to my work in physics.

Along with all of the classes I will continue to take, I have taken steps in gaining hands-on experience outside of the classroom. As previously stated, I have been working as Prof. Nazarenko's recording assistant since the summer, and continue to put together recordings and videos of Skidmore Jazz Ensemble performances for him. Starting last Fall I joined the Zankel Production/Stage Hand Team, which threw me right into the world of mixing audio for live shows, and mixing the audio and video for Zankel's live streams and website content. I also hosted a WSPN radio show with a group of friends, and among many responsibilities, my most important jobs are preparing any audio content before airing, DJing during the live show, and editing the recorded episodes to be posted online the next day. Starting this semester I will be doing more work for the Zankel team, and will get started as a part of the Dance Department's Production Team as well; running their technology and helping prepare for shows. I will also be continuing with the radio show, and will help out behind the scenes at WSPN, as I was asked to assist with the opening of their new recording studio. These will also be followed by summer internships and jobs to hopefully gain professional experience before graduation.

None of Skidmore's major offerings encompass the areas I hope to study. The Self-Determined Major program offers not only the perfect opportunity to take all of the necessary classes under one major, but it also helps relate all of the classes to each other through independent studies and projects which will incorporate my physics, music, and psychology knowledge. There are plenty of course offerings at Skidmore (including Music Technology, Sound & Music, Acoustics, etc.) that directly relate to my area of study, but are often not actually included as a part of those departments' majors. This demonstrates that Music Technology is not

the focus of these departments, and that I would actually delay my progression by not allowing me to pursue my other interests through double majoring and (or) minors, or complement my work through Management and Business and other departments. A Self-Determined Major is absolutely necessary in order for me to obtain all the knowledge I hope to from my undergraduate college experience.

# Core Courses

Number	Credits	Department	Title	Category	To be taken
MU 241	4	Music	Materials and Structures I	Foundation	Fall 2016 - Freshman
MU 242	4	Music	Materials and Structures II	Theory	Spring 2017 - Freshman
MU 255	3	Music	Music Technology I: Introduction to Electronic Music, Composition, and Recording Studio Techniques	Methodology	Fall 2017 - Sophomore
MU 357	3	Music	Composition	Methodology	Fall 2017 - Sophomore
PY 109	4	Physics	Sound and Music with Lab	Theory	Spring 2018 Sophomore
PY207	4	Physics	General Physics I	Foundation	Spring 2018 Sophomore
PY208	4	Physics	General Physics II	Theory	Fall 2018 Junior

PY218	3	Physics	Acoustics	Theory	Spring 2020 - Senior
-------	---	---------	-----------	--------	----------------------------

ID 371	3-4	Independent Study (Physics)	Musical Synthesis Techniques	Methodology	Fall 2019 Senior
PS 336	4	Psychology	Music Cognition	Brea	Spring 2018 Junior
AAMB321	4	Arts Administration/ Management and Business	Entertainment Law and Business	Brea	Spring 2020 Senior
ID 351A	I	Self-Determined Major	SDM Prep Seminar	Capstone	Fall 2019 Senior
ID 371	4	Self-Determined Major	Final Project	Capstone	Spring 2020 Senior

Green Complete =

Yellow= In Progress

# Disciplinary Breadth

Number	Credits	Department	Title	Category	To be taken
MU 241	4	Music	Materials and Structures I	Foundation	Fall 2016 - Freshman
MU 242	4	Music	Materials and Structures II	Theory	Spring 2017 - Freshman
MU 357	3	Music	Composition	Methodology	Fall 2017 - Sophomore
PY207		Physics	General	Foundation	Spring 2018  Sophomore
PY208	4	Physics	General Physics 11	Theory	Fall 2018  Junior
PS 336	4	Psychology	Music Cognition	Breadth	Spring 2018  Junior
AAMB 321	4	Arts Administration/ Management and Business	Entertainment Law and Business	Breadth	Spring 2020  Senior

Green Complete

Yellow = In Progress

# Sequence of Core Courses

## Music Courses

Number	Title
100-Level	
--- (diagnostic exam)	--- (diagnostic exam)
<b>200-Level</b>	
MU 241	Materials and Structures I
MU 242	Materials and Structures II
MU 255	Music Technology I: Introduction to Electronic Music, Composition, and Recording Studio Techniques
<b>300-Level</b>	
MU 357	Composition

Green = Complete

Yellow = In Progress

## Physics Courses

Number	Title
<b>100-Level</b>	
PY 109	Sound and Music with Lab
<b>200-Level</b>	
PY207	General Physics I
PY208	General Physics II

PY 218	Acoustics
<b>300-Level</b>	
ID 371	Musical Synthesis Techniques

Green = Complete

Yellow = In Progress

## Prerequisites

Number	Department	Title
MA111	Math	Calculus I
MA 113	Math	Calculus II
PS 101	Psychology	Introduction to Psychological Science

Green = Complete

Yellow = In Progress

# Elective Courses

Number	Credits	Department	Title
MP 275	1 (multiple semesters)	Music	Small Jazz Ensemble
MP 281	2 (multiple semesters)	Music	Private Musical Instruction
MU352	3	Music	Film Scoring
*MU 353	3	Music	Music Technology II: Advanced Electronic Music, Composition, and Recording Studio Techniques
MU355	3	Music	Orchestration
MU 359/360	3	Music	Advanced Composition
*MU 361	3	Music	Topics in Recording Engineering and Computer Music Technology
MU385	3	Music	Conducting
PY213	3	Physics	Electronics
PS 225	3	Psychology	Perception

*MF 351	3	Media and Film Studies	Law and Ethics for Media: An Interdisciplinary Study of Legal and Ethical Issues in Media Production
DS 210	3	John B. Moore Documentary Studies Collaborative	Introduction to Audio Documentary
*DS 302	4	John B. Moore Documentary Studies Collaborative	From Story to Screen: Film Crew Production... <u>Section 3 - Sound Designers</u>

Green = Complete

\*May not be offered before graduation, Professor(s) still deciding.

# Course Schedule

## Freshman Year

### Fall 2016 (Complete)

Number	Title	Credits	Requirement/Purpose
MP275	Small Jazz Ensemble	1	<b>Major Elective;</b> <u>Arts</u>
MP281	Private Musical Instruction	2	<b>Major Elective;</b> <u>Arts</u>
MU241	Materials and Structures I	4	<b>Major Prerequisite;</b> Humanities
CS 106	Intro to Computer Science I	4	<i>*personal interest*;</i> <u>OR2</u>
SSP 100	A Pact with the Devil	4	Scribner Seminar

**15 credits**

### Spring 2017 (Complete)

Number	Title	Credits	Requirement/Purpose
MP276	Small Jazz Ensemble	1	<b>Major Elective;</b> <u>Arts</u>
MP281	Private Musical Instruction	2	<b>Major Elective;</b> <u>Arts</u>
MU242	Materials and Structures II	4	<b>Major Prerequisite</b>
AM264	African-American Experience	3	Cultural <u>Diversity</u> ; Social Sciences

EN 105	Beyond Favs and Trolls	4	Ex12ository Writing
--------	------------------------	---	---------------------

14 credits

## Sophomore Year

Fall 2017 (Complete)

Number	Title	Credits	Requirement/Purpose
MU357	Composition	3	Major Core
MU255	Music Technology I	3	Major Core; <u>OR2</u>
MB 107	Business and Organization Management	4	Minor Requirement
PA III C	Self-Paced Fitness	1	<i>*personal interest*</i>

11 credits

Spring 2018 (In Progress)

Number	Title	Credits	Requirement/Purpose
PY 109	Sound and Music with Lab	4	Major Core; <u>OR2</u> ; Natural Sciences
PY207	General Physics I	4	Major Core
MA 111	Calculus I	4	Major Prerequisite; <u>OR2</u>
MP294	Small Jazz Ensemble	1	Major Elective; <u>Arts</u>
MU352	Film Scoring	3	Major Elective; <u>Arts</u>
IG201D	People of Color Intragroup	2	<i>*personal interest*</i>

18 credits

## Junior Year

### Fall 2018

Number	Title	Credits	Requirement/Purpose
MA 113	Calculus II	4	Major Prerequisite
PY208	General Physics II	4	Major Core
PS 101	Introduction to Psychological Science	4	Major Prerequisite
PS 336	Music Cognition	4	Major Core

16 credits

---

### Spring 2019 (Study Abroad?)

Number	Title	Credits	Requirement/Purpose
MB214	Foundations of Marketing	3	Minor Requirement
MB224	Foundations of Organizational Behavior	3	Minor Requirement
WLS 103	Alternative Second Semester Spanish	3	Foreign Language
PY213	Electronics	3	Major Elective

12 credits

## Senior Year

### Fall 2019

---

Number	Title	Credits	Requirement/Purpose
--------	-------	---------	---------------------

---

ID 351	SDMPrep Seminar	1	Major Core
ID 371	Musical Synthesis Techniques	4	Major Core
MB234	Foundations of Financial Accounting	4	Minor Requirement
MB337	Advertising and Promotion	4	Minor Requirement

**13.credits**

---

**Spring, 2020**

Number	Title	Credits	Requirement/Purpose
PY218	Acoustics	3	Major Core
AAMB321	Entertainment Law and Business	4	Major Core
ID 371	SDMFinal Project	4	Major Core

**11 credits**

**INTERDISCIPLINARY REQUIREMENT**

Scribner Seminar \*Completed Fa/12016\*

**FOUNDATIONS REQUIREMENTS**

Expository Writing (EW) \*Completed Spring 2017\*

Quantitative Reasoning 1 (QR!) \*Completed\*

Quantitative Reasoning 2 (QR2)    *\*Completed Fall 2016\**

**BREADTH REQUIREMENTS**

The Arts    *\*Completed Fa/12016\**

Humanities    *\*Completed Fa/12016\**

Natural Sciences    *\*Completed Fall 2017\**

Social Sciences    *\*Completed Spring 2017\**

**CULTURE-CENTERED INOIDRY REQUIREMENT**

Foreign Language )( *\*Scheduled for Spring 2019\**

Non-Western Culture/ Cultmal Diversity Study    *\*Completed Spring 2017\**

# Core Course Descriptions

## Music Courses:

Info	Course Description	Reasoning
<p>MU 241 (4 credits) Materials and Structures I</p>	<p>Following a brief review of the rudiments of pitch, rhythm, and meter, students will study the principles of species counterpoint and then proceed to write and analyze diatonic tonal harmony, with reference to musical literature, style, form, and compositional process. Diatonic tonal syntax is the foundation of Western art music from the seventeenth through the nineteenth centuries, as well as some jazz and popular musics up to the present time. Examples will be chosen from a wide range of historical periods, musical styles, and traditions.</p>	<p>This class provides an intermediate introduction into Music Theory. This class is necessary for having an understanding in future more-advanced courses in the music department, and builds upon skills in musicality and composition.</p>

<p>MU 242 (4 credits) Materials and Structures II</p>	<p>The second semester of theory will continue with the addition of chromatic harmony and the literature, style, forms, and compositional procedures associated with these expanded harmonic techniques, which appear in Western art music from the 18th to at least the early 20th centuries, and jazz. Topics will include chromatic chords, the resurgence of linear contrapuntal processes,</p>	<p>This course furthers MU241's building of musical foundations and a base-understanding of music theory. It provides a more-advanced approach to learning about music theory and composition, and concludes the introduction into the Skidmore music department.</p>
	<p>modulation, and techniques that pushed to and beyond the limits of tonal harmony, such as expanded tertian chords, linear chromaticism, and finally the symmetrical scales and interval patterns associated with the dissolution of functional tonality.</p>	
<p>MU 255 (3 credits) Music Technology I: Introduction to Electronic Music, Composition, and Recording Studio Techniques</p>	<p>Introduction to basic music technology, electronic music, and professional recording studio techniques and equipment. Study of elementary acoustics, MIDI, synthesizers, microphones, analog and digital multitrack recording, sound mixing, and processing. Introduction to works in various styles by established electronic composers.</p>	<p>Directly addresses musical production, which is an important aspect of my area of study. Provides an introduction to recording studio techniques, technologies, and computer music production software. Also covers very basic physics as it relates to music and recording.</p>

<p>MU 357 (3 credits) Composition</p>	<p>Writing in smaller forms for various media.</p>	<p>Intended to develop the artistic side of my major in order to build skills in writing music. Also applies everything learned in previous theory-based music courses to weekly assignments. In order to make your own musical projects, technologically or not, you must have skills in writing and composing the music in the first place.</p>
-------------------------------------------	----------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Green Complete = Yellow = In Progress

<p><u>PY I09 (4 credits)</u> Sound and Music with Lab</p>	<p>The physical principles of sound-how it is produced, propagated, and perceived. Illumination of principles will emphasize examples from music. Mechanisms used to produce different types of musical sounds will be discussed as well as the physical principles behind the reproduction of music in its many forms, such as radio, tape recorders, and CD players. The laboratory component will include measurement of the speed of sound, frequency analysis of musical instruments, and sound recording.</p>	<p>This class will provide me with an introduction to the relationship between physics and sound/music. As I'm taking it alongside General Physics and Calculus courses, it is necessary for relating these technical classes to my area of interest.</p>
<p><u>.py 207 (4 credits)</u> General Physics I</p>	<p>A calculus-based introduction to the concepts and principles of mechanics, emphasizing translational and rotational kinematics and dynamics, work and energy, conservation laws, and gravitation. Hands-on exploration of physical systems using computer interfaced laboratory equipment and spreadsheet modeling techniques are used to elucidate physical principles. Five hours of lecture, guided activities, laboratory experiments, and problem-solving per week.</p>	<p>Serves as an introduction to learning physics. Is a necessary foundation course to the more advanced physics courses as they would be impossible without a solid understanding of this course's material.</p>

<p>PY 208 (4 credits)</p>		
<p>General Physics II</p>	<p>A continuation of PY 207 into the areas of oscillations, electricity, and magnetism. Five hours of lecture, guided activities, laboratory experiments, and problem-solving per week.</p>	<p>Furthers and concludes PY207's introduction into physics. This course ensures that I have a solid understanding of basic physics so that I can apply them to areas like sound and acoustics in future courses.</p>
<p>PY 218 (3 credits)</p>		
<p>Acoustics</p>	<p>An advanced study of acoustics as it applies to music. Students will explore how musical sounds are produced, propagated, and perceived, with an emphasis on the mathematical and scientific relations that allow one to predict these phenomena. Additionally, students will investigate how a sound that is produced can vary in the way it propagates and is perceived in different spaces. They will learn how to analyze a room acoustically and how to adjust that room to fit the needs of the sounds within it.</p>	<p>This class is another course that directly applies to an aspect of my area of study: Acoustics. Along with the artistic and musical aspect of my major, there is also work that involves analyzing sound and how rooms/spaces effect</p>

<p><u>PY 371 (3-4 credits)</u> Musical Synthesis Techniques</p>		<p>This course is an independent study which Prof. Linz often leads for self-determined majors such as myself, as well as Physics and Mathematics majors with an interest in synthesis. This study would incorporate all of my knowledge from previous Physics courses and allow for a focus on coding and programming computer equipment and synthesizers.</p>
---------------------------------------------------------------------	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Green Complete =

Yellow = In Progress

## Psychology Courses:

Info	Course Description	Reasoning
<p><u>PS 336 (4 credits)</u> Music Cognition</p>	<p>An exploration of the psychological and neuroscientific research in music cognition. Students will investigate music and language, musical emotion, neurocognitive processing of music, pitch and time, perception and production, music's psychological function, and evolutionary accounts of music-making.</p>	<p>This course offers an even more focused look into the psychology behind music. Knowing how music affects a brain neurologically is important to this area of study</p>

Green Complete =

Yellow = In Progress

## Arts Administration/Management and Business Courses:

Info	Course Description	Reasoning
<p>AAMB 321 ( 4 credits ) Entertainment Law and Business</p>	<p>An interdisciplinary study of the connections and conflicts between the business, artistic, and legal or ethical issues that arise in the arts and entertainment arena (theatre, music, film, television, literary, and visual arts). Students will explore, from both financial and creative perspectives, the complex and often fractious relationships among stakeholders in these industries while developing a practical understanding of the particular considerations that</p>	<p>This is the course in the Management and Business department that directly applies to my area of study, without a primary focus on observing and running larger corporations and business startups that the department is known for. Its especially necessary for my major as a producer and electronic-musician, but is also important for anybody looking to go into the arts or related medias.</p>

	<p>emerge with each kind of collaboration. Topics may include: the impact of new technologies and distribution methods, social media and marketing, copyright and piracy, privacy, free speech, defamation, and celebrity publicity rights and endorsements. This course covers the following dimensions for studying management and business in context: I, II, III, IV, VI.</p>	
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Green Complete

Yellow Progress

In



# Elective Course Descriptions

## Music Courses:

Info	Course Description	Reasoning
(3) MP 275 (1 credit) Small Jazz Ensemble	Jazz improvisation and performance in a small combo setting.	It is important to have hands-on musical experience, and interact with other musicians in order to contribute in any area related to music. This course will help upkeep my own musicality while developing skills working with other musicians and performing.
(2) MP 281 (2 credits) Private Musical Instruction	Individual 45-minute weekly instruction in cello, piano, guitar, voice, sitar, oboe, violin, harp, fiddle, mandolin, trumpet, horn, clarinet, bassoon, trombone, banjo, tuba, flute, sax, bass, jazz guitar, jazz piano, harpsichord, organ, fortepiano, orchestral instruments, tabla, and jazz improvisation. Prospective students accepted by audition/interview.	Private lessons are incredibly helpful for continuing to grow as a musician, develop new skills, and learn new music. Being comfortable on an instrument (or multiple instruments) can be extremely helpful for producers and composers as they can apply personal knowledge and experience to their work.

<p>MU 352 (3 credits) Film Scoring</p>	<p>Music composition and audio production techniques for film, television and documentaries. Students will learn to compose and record original compositions using either computer virtual synthesizers or a music notation program to accompany and enhance video sequences from short</p>	<p>Film scoring is one of my favorite areas of Music Technology. Scoring for films is a popular post-graduate career for students in Music Technology. This course is very helpful for applying skills obtained in classes like <i>Music Technology I</i> and <i>Composition</i> to more-focused weekly assignments.</p>
----------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>films/videos, feature film excerpts and television and documentary films and videos. From romantic background music to exciting action sequences, students will learn the most effective ways of creating original music that enhances the images on the screen. Commercial shorts, feature films and documentaries will be studied and analyzed for musical content and production techniques which may be applicable to student projects in this course.</p>	
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

*MU 353 (3 credits)	Development of original compositions using advanced studio techniques. Areas of study include advanced MIDI projects, computer algorithms for composition and sound synthesis, synthesizer programming, audio (SMPTE) and video (VITC) time code synchronization, digital sampling, digital multitrack recording, automated digital mixing, digital mastering for compact disk, and audio for video. Study of works in various styles by established electronic composers.	This course (if offered again) would be helpful for having a full understanding of musical production. It is so important to my major that if it is not offered, I will have to learn the discussed topics on my own time, but being able to learn in a classroom setting and applying the learning to weekly projects would be incredibly helpful and serve as a solid continuation of <i>Music Technology I</i> .
Music Technology II: Advanced Electronic Music, Composition, and Recording Studio Techniques		
MU 355 (3 credits)	Study of the capabilities of orchestral instruments and ways they may be combined. Detailed examination of scores. Orchestration projects.	Producers and Electronic Composers are not always stuck behind a computer - Recording Arts incorporates real musicians in producing music. However, in order to work with real musicians, specifically Orchestral musicians, a course like this is necessary for an understanding of how to compose and produce for those instruments.
Orchestration		
MU 359/360 (3 credits)	Continuation of MU 357, <u>MU 358</u> including writing in larger forms.	. As stated before, composition skills are essential for any musician showcasing their own work. This class would serve as an advanced continuation of <i>Composition</i> .
Advanced Composition		

<p><u>*MU 361 (3 credits)</u> Topics in Recording Engineering and Computer Music Technology</p>	<p>The study and practical application of advanced music technology topics chosen at the discretion of the instructor. Topics may include advanced MIDI applications; recording engineering, production, and marketing; digital synthesis, recording, and editing; intelligent synchronization; programming languages for synthesis and studies in psychoacoustics.</p>	<p>This course would provide an advanced and focused look into recording and producing. Obviously directly applying to my major, this course would be challenging and worthwhile for growth within my major.</p>
<p><u>MU 385 (3 credits)</u> Conducting</p>	<p>Basic techniques of orchestral and choral conducting, score study and analysis.</p>	<p>Similar to <i>Orchestration</i>, producers and composers that use their own work must know how to work with real musicians. This requires conducting skills and the ability to facilitate recordings/performances.</p>

Green = Complete

Yellow = Progress

In

## Physics Courses:

Info	Course Description	Reasoning
------	--------------------	-----------

<p><u>PY 213 (3 credits)</u> Electronics</p>	<p>An introduction to solid-state electronics. Discrete circuit elements and integrated circuits are discussed and employed in both digital and analog applications. Circuit analysis, amplifiers, signal processing, logical networks, and practical instrumentation are studied.</p>	<p>This course directly relates to courses involving Synthesis, and would serve as a great introduction to these courses. An understanding of electronics is what this major is all about, along with sound and musrc.</p>
--------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Green = Complete

Yellow = In Progress

## Media and Film Studies Courses:

Info	Course Description	Reasoning
<p><u>*MF 351</u> Law and Ethics for Media: An Interdisciplinary Study of Legal and Ethical Issues in Media Production</p>	<p>How do filmmakers and documentarians, authors and artists, musrcrans and storytellers protect their ideas, expressive works and creative endeavors from being copied or stolen by others, especially in the digital age? What legal and ethical issues do these individuals confront as they produce their creative projects, especially ones which incorporate other media content? How should media/content producers and consumers respond to issues of "fake news" and "alternative facts"? This course offers an interdisciplinary exploration</p>	<p>Similar to <i>Entertainment Law and Business</i>, this course is helpful for knowing how to stay on the right-side of the law when producing musical projects. Although in the Media and Fihn Studies department, the course also addresses musicians and other artists for whom the material pertains to.</p>

	<p>of the various legal, ethical and practical issues involved in varying media production forms (video/film, photography, music/audio, documentary, web and exhibit-based narratives etc.) for fiction and non-fiction storytelling. Students in the course will consider and analyze issues related to and best practices for intellectual property (copyright, trademark, right-of-publicity, droit moral), privacy, defamation, contracts, permissions and clearances for content, as well as ethical concerns regarding truth-telling, accuracy, fairness, deception/manipulation, plagiarism, conflicts of interest, source-shielding/privilege, independence and credibility/accountability. Students will learn to develop approaches regarding underlying policies and to challenge assumptions at the intersection of storytelling, business, art, law and creative expression. Some documentary films will be shown on a few evenings during the semester.</p>	
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Green Complete

=

Yellow Progress

=

In

## John B. Moore Documentary Studies Collaborative Courses:

Info	Course Description	Reasoning
<p>DS 210 Introduction to Audio Documentary</p>	<p>An introduction to the technologies, tools, and skills of creating audio documentaries. Working individually and in small production teams, students will produce original sound works for radio broadcast and podcast and listen to and critically analyze examples in the medium. Students will also learn to research and report a story according to ethical guidelines and legal norms of permissions as they apply different methods of sculpting an audio experience, telling stories, and representing reality. The course assumes no prior knowledge of audio technologies. Students will also learn to research and report a story, observe ethical guidelines and legal norms of permissions, and apply different methods of sculpting an audio experience, telling stories, and representing reality.</p>	<p>This course offers a unique approach to working with audio for creative projects. Rather than creating solely-musical projects, it incorporates the idea of storytelling through an audio experience. This would be a different and very interesting course that definitely fits under the umbrella of my major.</p>

<p>*DS 302  From Story to Screen: Film  Crew Production ...  (Section 3 - Sound Designers)</p>	<p>Crew based production. Take a film project from story to script to screen as you develop production skills, work across areas of study for an interdisciplinary</p>	<p>Another application for my area of study: working with filmmakers. Visual media and audio media are not far-off from each other, and audio is necessary for visual media to</p>
------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>experience, and create a films of the caliber to build a professional portfolio. Over a semester, you will collaborate in a small (3-4 person) crew to create a 5 -7 minute film based m research. The film might be a narrative film based on a true story, a story that requires research, or a documentary film. You will be involved in pre-production, production and post-production in one of three areas: script/direction, cinematography/editing or sound/soundtrack and producer. While writers prepare scripts, production crew will learn more advanced audio and video techniques. The crews will work together on production and post-production. Each student will contribute research relevant to their area of specialization (i.e. learning about historical or subject area, creating an appropriate lighting or sound effect, selecting from styles in existing media), present their findings in class, and participate m crew-based video production. Critical film analysis from the perspective of your role on the crew will hone your skills in and appreciation for the craft of fihrnaking.</p>	<p>function (aside from silent films). This would be a helpful experience of working on a team and producing audio for an audio-visual documentary project.</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------

# Final Project

My final project is still in the process of being fleshed out. Since I am still in the beginning stages of my sequence of courses in the Physics department, I am still developing an understanding for the material. However, I have had some ideas after discussions with my advisors.

One such idea involves composing and producing a musical piece, or a musical body of work, intended for a very specific space on campus. A project like this would draw from my production and composition learning in the Music department, as well as (primarily) acoustics from the Physics department. Acoustics focuses on how space or a room affects sound, and involves either observing a room and adjusting sound to better serve the space, or vice versa, adjusting the space to serve the sound and music. Whether the composition is performed live by Skidmore musicians or is presented as an edited and produced recording, it would showcase the importance of Acoustics and how the environment affects the sound of the music.

Another idea involves designing a new instrument or electronic device intended for performance in a specific space. Similar to the previous idea, this idea incorporates acoustics, as well as synthesis when it comes to developing the instrument's unique sounds.

Yet another idea I had involves Film Scoring: an area of Music Technology that I especially enjoy. It would incorporate scoring for a film or video utilizing synthesis techniques and acoustics through the sounds used in the score, and the space used in the performance. A project like this could also involve one (or both) of the previously listed ideas.