

TS: Music Technology Self-Determined Major Proposal
Education, Composition, and Marketing of Electronic Music

I believe that the main role of the music producer is to add a mode of interpretation to a piece of music that the traditionally trained musician cannot provide. This interpretation, which exists within the process of turning an artist's live performance in the studio into a finalized musical product, is only significant if the producer has acquired a solid foundation of diverse technical and analytical skills. But these skills cannot be acquired through a traditional study of music, as they extend beyond developing one's musicianship, additionally necessitating a cohesive study of technology, science and marketing, and how these aspects affect both the final musical product and each other.

The problem is that the current educational process focusing on music production tends to either neglect certain aspects, or fails to fully integrate them into one solid course. The Tisch School at NYU, for example, recognizes three major types of producers, the engineer-producer, the musician-producer, and the executive-producer, but offers each of these only as separate majors, in isolation from each other (see following page). The truth is that a successful producer necessitates an integrated curriculum containing all of these courses of study, as they all relate to one another in terms of the analytical skills he must develop. The marketing value of a product and who the consumers for this product will be, for instance, greatly affects how that music will be composed, and what style of engineering this genre of music will require. By studying all of these aspects, and more importantly their relation to each other, an individual can better create and analyze the final product as a whole. A track on a CD is a multi-dimensional piece of art, and while its musical, engineering, and marketing value can all be analyzed separately, they must be assessed in relation to each other in order to gain an understanding of the role each plays within the creation process, which will vary greatly depending on the type of music, etc.

The purpose of my self-determined major in music technology, then, will be to study music production in regard to each of the aspects outlined above, and ultimately, to apply the pedagogical theories I have learned in education classes to design a diverse, educational course that fully integrates each of these aspects in its curriculum. All of the classes I take will assist in helping me unite these diverse fields in this educational course. In creating it, I will prove the importance of such a holistic study, while at the same time furthering my own understanding and analytical skills of music production, demonstrated aurally by electronic compositions I will create and literally by a paper I will write.

The study of technical skills I will first incorporate into my education course will focus on the knowledge required to operate the software and hardware used to program and create electronic music. The music technology classes and independent studies I take will not only provide me with the primary set of operating skills that are a prerequisite to all production, but will inform me how to use this equipment most effectively, learning what constitutes a good mix, how to critically identify problems in weak recordings, and other knowledge that will allow me to more competently analyze specifically the audio production value of a piece of music.

But the technical aspect of my study will incorporate more than just the skills to operate equipment—the knowledge I will gain in physics courses through my study of acoustics, psycho-acoustics, waveforms and spectra will also be applied to my engineering skills, as I will learn how to better shape and create music from physical waveforms studied via computer. When computers and other electronic tools became introduced to the world of music in the mid 20th century, modern composers could suddenly create new tonal and atonal sounds and textures using this scientific knowledge, instantly creating music without traditional instruments. Often this process of creating sound is completely neglected in the study of music production because it requires knowledge of physics rarely present in production courses. The technical aspect of my SDM and the curriculum I design will combine the study of how equipment is operated with this scientific knowledge, as I believe an integrated study of both is necessary.

But though these technical aspects are quite important, I have found that the educational process of teaching music production places too much emphasis on them, while the actual compositional process of writing and arranging more traditional music, perhaps more important, is downplayed. Just as the modern producer must learn the skills that enable him to create electronic music, he must also learn the traditional set of skills composers have utilized for centuries in creating their own music. The classes I take at Skidmore and Southern Cross will provide me with the knowledge of harmony, melody, and counterpoint required to create and analyze sophisticated compositions. The world music history I take will provide me with a context and evidence for these analyses. How specific harmonies were voiced by the great classical composers, or traditional African rhythms, for instance, will directly influence the choices I make in voicing my own chords and drum sequences in my compositions.

Though the means of creating music has expanded, the music itself remains based in the same scales and modes that have existed for over a thousand years, and the knowledge of history and theory of western and world music will provide with yet another vantage point from which to analyze, interpret and produce modern music. The educational program I develop will concentrate heavily on integrating this study of musicality with the technical skills required to create the music, so that one's studio skills will be seen only as a means to an artistic vision. While many schools offer music production independently from a music major, I will apply my knowledge of pedagogical theories to create a course that merges the knowledge required of an engineer and that of a musician, so that both work in harmony towards a final product.

I will also integrate a study of business and marketing into the course I design, as the isolation of this element of production in many educational facilities has led to an undesirable separation between the executive producer and the musician and engineer producers. Many times the modern producer will spend hours on end in the studio creating a piece of music, and by putting so much effort into solving technical problems, he has little energy left to aggressively market his product once it is completed. As a result, his work often goes largely unrecognized. The marketing courses I take at Skidmore will offer me insight into how I may go about marketing my compositions—I will attempt to contact record executives, sell my music on iTunes®, and create a website that promotes my music. The business courses I take will help me learn the finalizing skills of the production process.

But perhaps more importantly, these classes will offer me yet another valuable set of analytical skills. As it is the job of the producer to provide an interpretation and analysis that the artist cannot, these classes will allow me to develop analytical skills related to and affected by music, but not entirely musical themselves. If he wishes to be commercially successful, a producer must have knowledge of what type of audience he should market his music to, and where he should advertise this music, based on who his consumers are. Should he market his product on MTV, VHI, or a soft-rock radio station? By identifying potential consumers and other business-related aspects, he will directly and knowingly affect both the style of music he composes and style of engineering he employs. In my education course, I will show how and why these marketing skills are directly applicable to composing and programming electronic music, how to engineer differently for different markets, and how this knowledge can be used to better understand other aspects of production.

The fact is that all of these areas truly depend on each other, and to understand music production in all of its diversity, one simply cannot study these three cognate areas separately. The self-determined major in music technology I propose will allow me to merge these previously isolated parts into a solid, cohesive educational curriculum, which will both further my own understanding of music production and offer individuals interested in learning about this modern art form a new, more solidified and diverse course of study than ever offered before. I will take specific pedagogical theories and what I have learned about the proper methods of music and general education, and develop outlines and syllabi that will introduce a new pedagogy of teaching this subject. I will include a strong integration of technical study, informed by music tech classes and physics, that will be seen as a means of achieving a final artistic vision greatly influenced by the traditional music courses I take. I will stress the importance of marketing, and how it affects/is affected by both composition and engineering. The course I design will be a condensed version of my self-determined major, integrating the different academic studies I have undergone, and relating them to music technology. It will represent all that I have learned through my SDM, and clearly demonstrate the inter-relatedness of these aspects. Music production truly is an intellectual process, and from my self-determined major I will gain insight into the diverse set of analytical skills required to effectively interpret and create this modern art.

The Clive Davis Department of Recorded Music recognizes three main types of record producers:

- *The Engineer Producer* approaches record producing primarily from a technical perspective and aims to master recording technology. An engineer producer with

entrepreneurial ambitions might launch or run a recording studio or innovate new recording or distribution technology. Examples of successful engineer producers include Bruce Swedien (Michael Jackson, Barbra Streisand), Bob Clearmountain (Bruce Springsteen, Bryan Adams), and Sylvia Massy Shivy (Tool, Red Hot Chili Peppers).

- *The Musician Producer* approaches record producing primarily from a performance perspective (singing, playing instruments) with a strong focus on musical craft. While musician producers may possess engineering skills and business acumen, they consider themselves musicians or performers or songwriters first. Examples of successful musician producers include Alicia Keys, Paul Simon, Joni Mitchell, Missy Elliot and Kenny "Babyface" Edmonds.
- *The Executive Producer* approaches record producing primarily from a business perspective. Often working directly in a managerial position with recording artists, the executive producer aims for a presidency or chairmanship at a record label. Examples of successful executive producers include Clive Davis, Sean "P.Diddy" Combs, Sylvia Rhone, and David Geffen

(<http://clivedavisdept.tisch.nyu.edu/object/deptnotes.html>)

List of Proposed Core Courses

Course #	Name	Credit
PY109	Sound and Music w/ Lab	4
MB107	Business Organization and Management	4
MB214	Foundations of Marketing	3

ED103	Introduction to Teaching	3
EDU01304*	Music Education in the K-6 Classroom I	4
MUS00641*	Practical Studies I: Production	4
MU241	Materials and Structures I	4
MU255	Music Technology I	3
MU353	Music Technology II	3
MU361	Adv. Music Tech Topics: Logic 7 and Surround Editing	3
MU373	Indep Study: Teaching Music Technology	3
MU376	Senior Project Music Technology	3
MU299	Professional Internship in Music	3

List of Proposed Elective Courses

CS106	Introduction to Computer Science I	4
LS2 123.	Jazz: A Multicultural Expression	3
MU371	Indep Study: Protools Plugins and Mastering	3
MU372	Indep Study: 02R Mixer and Protools Study	3
MP281X	Percussion	2
MUS00600*	World Music Perspectives	4

* To be taken abroad, at Southern Cross University in Lismore, Australia:

EDU01304: Music Education in the K-6 Classroom I

Designed to further develop students' skills in music, and to give them a greater depth of understanding of musical concepts, so that they can approach the teaching of classroom music with confidence and competence.

MUS00641: Practical Studies I: Production

Provides a grounding in practical techniques, technical routines, theory applications and musicianship skills relevant to the studio specialisation of the student.

MUS00600: World Music Perspectives

Provides students with a range of historical, cross-cultural and indigenous perspectives relating to the development of 'world' music. Examines the role of music within different societies, and explores cross-cultural musical comparisons.

(see <http://www.scu.edu.au/docs/handbook/units/index.php> for further info)

Core Courses for Self-Determined Major According to Semester of Study

Fall 2003

MU255

Spring 2004

MU353

Fall 2005

MU241

MU361

Spring 2006 (Classes to be taken in Lismore, Australia, at Southern Cross University)

MUS00641

EDU01304

Summer 2006

MU299

Fall 2006

MB107

ED103

Spring 2007

PY109

MB214

MU376

MU373

Description of Core Courses and How Each Applies to the Major:

PY 109. SOUND AND MUSIC WITH LAB 4

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. (Fulfills QR2 and natural sciences requirements.) J. Linz

* This physics course will provide me with technical knowledge of sound and waveforms that will enable me to better analyze and create music from an engineering perspective. From this course I will gain the scientific knowledge necessary to further my technical and analytical skills in the studio, an important aspect of music production that is often not offered at schools.

MU 241. MATERIALS AND STRUCTURES I 4

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 17th through the 19th 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. (Fulfills humanities requirement.) *Prerequisite:* Diagnostic exam. B. Givan, D. Rohr

* This course will provide me with the knowledge of Western music theory and harmony necessary for improving traditional composition and analytical skills.

EDU01304: Music Education in the K-6 Classroom I*

Designed to further develop students' skills in music, and to give them a greater depth of understanding of musical concepts, so that they can approach the teaching of classroom music with confidence and competence.

* This class will not only further my competence in teaching music, but will offer me pedagogical theories relevant to teaching younger students, so that I will be able to target the curriculum I design towards elementary level students as well as middle and high school students.

MU 255. MUSIC TECHNOLOGY I: INTRODUCTION TO ELECTRONIC MUSIC, COMPOSITION, AND RECORDING STUDIO TECHNIQUES 3

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. Weekly studio/lab work. *Prerequisites:* ability to read music and QR1. (Fulfills QR2 requirement.) Studio fee: \$50. A. Holland

* In addition to providing me with the technical knowledge required to operate studio machinery and software, this course will enhance my analytical skills pertaining to the engineering quality of a piece of both traditional and electronic music.

MU 353. MUSIC TECHNOLOGY II: ADVANCED ELECTRONIC MUSIC,

COMPOSITION, AND RECORDING STUDIO TECHNIQUES 3

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. Weekly studio/lab work. *Prerequisite:* MU255 or permission of instructor. Studio fee: \$50. A. Holland

*This course will further enhance technical and analytical skills pertaining to operating equipment and recording.

MU 299. PROFESSIONAL INTERNSHIP IN MUSIC 3

Internship opportunity for students whose curricular foundations and cocurricular experience have prepared them for professional work related to the major field. With faculty sponsorship and department approval, students may extend their educational experience into such areas as arts administration, recording, and archival work. *Prerequisite:* Permission of the supervising faculty member and approval by the department. *Non-liberal arts*

*This course, in which I will intern at a professional recording studio, will offer me first hand experience of the technical, musical and business skills being applied to production in a professional environment.

MU 373. INDEPENDENT STUDY 3

An opportunity for qualified students to pursue independent study, under the supervision of a member of the department, in any field of music. *Prerequisite:* Consent of the instructor and approval of the department. The Department

*In this independent study I will primarily examine curriculums and methods practiced at music production schools in the United States. I will then apply this, along with my knowledge of general and music education, in assistant teaching a music technology course at Skidmore. I will teach and present specific topics to the MU353 class that I will have examined through my other independent studies, and work as a studio assistant in solving student's problems they may encounter in the studio. It is in this course that I will directly apply the pedagogy of teaching to production.

MU 361. TOPICS IN RECORDING ENGINEERING AND COMPUTER MUSIC TECHNOLOGY 3

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. Course may be repeated for credit with the permission of the department. *Prerequisites:* MU255, 353. Studio fee: \$50. *Non-liberal arts.* A. Holland

*This course will allow me to more deeply examine the specific recording software program Logic Pro 7 and its function in surround sound editing, neither of which are offered in MU255 or MU353. I believe that the surround sound speaker setup will become the standard within the next decade, and I may present the knowledge I have gained in this course in the independent study described above.

ED 103. INTRODUCTION TO TEACHING 3

Consideration of the role of the teacher, the nature of the learner, conceptions of teaching, factors affecting instructional decisions, philosophies of education that guide the practice of teaching, curriculum innovations and trends, and the school as an institution. Includes observation and field work in local schools, K–12. The Department

*This class will provide me with pedagogical information necessary to properly design an effective and professional curriculum. I will apply the knowledge of general education and teaching I learn in this course with what I have learned specifically about *music* education to create an educational course merging both musical and non-musical concepts relevant to the study of music technology. It will also prepare me for the assistant teaching I will do in my independent study.

MB 107. BUSINESS ORGANIZATION AND MANAGEMENT 4

A broadly based introduction to the field of business that can serve either as the first course in the departmental sequence or as an only course for a student desiring an overview of the business world from a manager's perspective. Topics include strategic analysis and planning, marketing, financial management, control, organizational design, human behavior, and communications. Students present individual written analyses and engage in group oral presentations.

*This business course will introduce me to the primary information necessary in becoming competent in the business aspect of both marketing my music and learning how to assess musical products in terms of their market value.

MB 214. FOUNDATIONS OF MARKETING 3

A comprehensive assessment of marketing's dynamic role in contemporary global society. The course emphasizes the development of marketing strategies which reflect domestic and cross-national competitive structures and diverse market place realities. Topics include consumer analyses, target market identification, positioning, e-commerce, and coordination of marketing mix elements. *Prerequisite:* MB107 or permission of instructor. B. Balevic, C. Page, E. Lepkowska-White

*I feel it is necessary to gain a more complex and thorough understanding of marketing in order to effectively apply these business theories to producing music, and this course will allow me to do this. After taking both business courses, I will be able to combine the introductory and more advanced information into one solid unit in the business portion of the curriculum I design. I will apply these concepts directly to marketing music, engineering it for specific target markets and analyzing its value in terms of business.

MUS00641: Practical Studies I: Production*

Provides a grounding in practical techniques, technical routines, theory applications and musicianship skills relevant to the studio specialisation of the student.

*By taking this course I will be working not only in a new studio, but with a completely new teacher, studying a different curriculum. Because there are so many different methods and ideologies concerning music production, I feel this course will be very valuable in offering me new technical skills and another perspective on how to produce music. I will evaluate this course in regard to the music technology courses at Skidmore, and I will hereby be able to better establish my own curriculum, merging the most valuable concepts of each of these three courses into one solid unit.

MU 376. SENIOR PROJECT IN MUSIC TECHNOLOGY 3

Independent project culminating in a substantial product in an appropriate medium and format, and an oral symposium presentation. Project proposal must be submitted to the chair for departmental approval by November 15 of the senior year. *Prerequisite:* MU363. *Non-liberal arts.* The Department

* See next page

In addition, every class will significantly inform the educational syllabi and curriculum I design, because by studying each aspect in such detail, I will be able to discriminate between what I ultimately incorporate into the curriculum I design, how much emphasis I will place on each area of study, and specifically how I should merge certain areas with others so that they can be examined most effectively.

The independent study in which I will create a final product will thoroughly demonstrate how I have applied my interdepartmental core and elective courses in creating an innovative method of studying music production. I will prove the necessity of integrating each of the academic aspects previously outlined, demonstrating how I have done this by designing a new educational curriculum. The syllabus will be presented on a web page made available to music tech professors at Skidmore and other institutions nationwide. It will be very comprehensive, and each area of study informed by the classes I have taken will be fully outlined.

The website I create will also contain 5 to 10 electronic compositions and many shorter, example audio tracks, both of which will directly correspond to specific aspects of my educational curriculum. My compositions will aurally demonstrate how the study

of technology, theory and physics have been applied to these tracks, while the example audio tracks will be used to clarify concepts introduced in my curriculum, like how a piece of music may be uniquely engineered for a specific market, for instance. Working with a professor from the management/business department, I will incorporate my business skills further by marketing the website as a whole and the individual songs on the website, possibly through iTunes.

In addition to aurally demonstrating how these inter-departmental courses have been applied to the study of audio technology, I will produce a paper that will explain exactly what I have done in creating my final project, and how the pedagogical theories I have studied in education classes have been applied to establishing my proposed curriculum. In addition, I will give a public presentation in which I will present and explain these final products.

My purpose, then, will be to design a unique method of studying music technology, in all of its diversity, which will present how and why everything in my self-determined major has been molded into one single curriculum. I will demonstrate this with three final products all relating to one another: a website containing both the curriculum I design and original compositions relevant to this curriculum, a paper and a public presentation.