

## Minor in French

### REQUIRED COURSES

Complete the following three courses:

LNF U150	Introduction to French Culture	4 SH
LNF U301	French Conversation and Composition 1	4 SH
LNF U302	French Conversation and Composition 2	4 SH

### MASTERPIECES SERIES

Complete one of the following courses:

LNF U550	Masterpieces of French Literature 1	4 SH
or LNF U551	Masterpieces of French Literature 2	4 SH

### ADVANCED ELECTIVES

Complete two courses from the following list. One of the two courses can be the remaining half of the Masterpieces Series:

LNF U550	Masterpieces of French Literature 1	4 SH
or LNF U551	Masterpieces of French Literature 2	4 SH
LNF U650	French Poetry	4 SH
LNF U651	The Splendid Century	4 SH
LNF U652	Age of Enlightenment	4 SH
LNF U653	Romantic Heritage	4 SH
LNF U670	Topics in French	4 SH

### GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Spanish

### REQUIRED COURSES

Complete the following three courses:

LNS U150	Spanish Culture	4 SH
or LNS U160	Latin American Culture	4 SH
LNS U301	Spanish Conversation and Composition 1	4 SH
LNS U302	Spanish Conversation and Composition 2	4 SH

### MASTERPIECES SERIES

Complete one of the following courses:

LNS U550	Masterpieces of Spanish Literature: Twelfth–Seventeenth Century	4 SH
or LNS U551	Masterpieces of Spanish Literature: Eighteenth–Twentieth Century	4 SH

### ADVANCED ELECTIVES

Complete two courses from the following list. One of the two courses can be the remaining half of the Masterpieces Series:

CIN U265	Spanish Civil War on Film	4 SH
LNS U170	Caribbean Literature and Culture	4 SH
LNS U240	Latin American Film	4 SH
LNS U250	Cervantes and His Times	4 SH
LNS U501	Advanced Spanish	4 SH
LNS U550	Masterpieces of Spanish Literature: Twelfth–Seventeenth Century	4 SH
or LNS U551	Masterpieces of Spanish Literature: Eighteenth–Twentieth Century	4 SH
LNS U650	Latin American Literature	4 SH
LNS U651	Spanish Golden Age	4 SH
LNS U670	Spanish Seminar	4 SH

### GPA REQUIREMENT

2.000 GPA required in the minor

NORTHEASTERN UNIVERSITY

## MULTIMEDIA STUDIES

[www.mmstudies.neu.edu](http://www.mmstudies.neu.edu)

ANTHONY P. DE RITIS, PhD  
*Associate Professor and Chair*

### PROFESSORS

Dennis H. Miller, DMA, *Music*  
T. Neal Rantoul, MFA, *Visual Arts*

### ASSOCIATE PROFESSOR

Edwin C. Andrews, MFA, *Visual Arts*

### ASSOCIATE ACADEMIC SPECIALIST

Ann McDonald, MFA, *Visual Arts*

### CLINICAL LECTURER AND TECHNICAL DIRECTOR

Cynthia Baron, MBA, *Visual Arts*

Multimedia is the delivery of rich content through digital media. Digital media broaden our exposure to new ideas and creative expressions. The media afford artists, composers, and designers new opportunities to experiment and collaborate with a wide variety of partners, such as medical researchers, mathematicians, and historians. Multimedia has made specialized computer literacy and broad-based knowledge necessities for the creative professional.

The multimedia studies major unites the worlds of art, music composition, design, and technology. It offers students in the Departments of Visual Arts and Music the opportunity to understand and experience the disparate disciplines that contribute to multimedia creation. It focuses equally on the issues that govern digital art and music and the creation of sound and image. The major exposes students to the historical significance of changing technology and media, while preparing students to integrate their creative work with the skills they will need in the rapidly growing field of multimedia production.

Multimedia development requires intensive team interaction and a broad knowledge base. It is too complex for one individual, no matter how creative, to master. Members of a team are better able to provide expertise in their unique disciplines when they are fully aware of their team members' contributions. In addition, this collaborative approach best allows all team members to understand the context in which their contributions are used. Students in the multimedia studies major have many opportunities to collaborate with their peers and work with students in all four multimedia concentrations.

Multimedia production requires expert knowledge in at least one discipline, which is why students can't major in multimedia alone. To be eligible to apply to the multimedia studies program, students must:

1. complete at least one year of course work in the Departments of Music or Visual Arts.

- be a major in good standing in one of the four creative specialties: music technology, animation, graphic design, or photography.
- meet the separate requirements for admission to the program itself. These include submission of a portfolio of work, letters of recommendation, and a minimum GPA (cumulative grade-point average).

Students in the program begin their work in either the Department of Music or the Department of Visual Arts and then continue to develop their core discipline while exploring the interdisciplinary multimedia course work.

The curriculum comprises four components:

- basic principles of art and design
- essential course work in music and music technology
- extra-disciplinary courses to provide an historical, societal, and cultural framework
- cross-disciplinary courses specific to the program (such as Narrative for Multimedia)

The student's senior year in the program is devoted to integrating these four components. Students working in cross-disciplinary teams draw on their accumulated knowledge to develop and deliver original multimedia content.

## BS in Multimedia Studies

### COLLEGE OF ARTS AND SCIENCES BS CORE REQUIREMENTS FOR ARTS/HUMANITIES MAJORS

See page 48 for requirement list.

#### CONCENTRATIONS

Complete the concentration in animation, the concentration in graphic design, the concentration in music technology, or the concentration in photography.

##### *Concentration in Animation*

###### ANIMATION COURSES

Complete the following seven courses:

ART U101	History of Art before 1400	4 SH
ART U103	History of Art since 1400	4 SH
ART U124	Basic Drawing	4 SH
ART U130	Visual Studies Foundation 1	4 SH
ART U131	Visual Studies Foundation 2	4 SH
ART U180	Video Basics	4 SH
ART U290	Introduction to Digital Tools	4 SH

###### ANIMATION STUDIO

Complete the following five courses:

ART U175	Animation Basics	4 SH
ART U275	Animation Studio 1	4 SH
ART U375	Animation Studio 2	4 SH
ART U475	Animation Studio 3	4 SH
ART U575	Animation Studio 4	4 SH

###### MULTIMEDIA STUDIES

Complete the following four courses:

MMS U300	Narrative for Multimedia	4 SH
MMS U305	Programming for Multimedia	4 SH
MMS U400	Hypermedia	4 SH
MUS U220	Music and Technology 1	4 SH

###### CAPSTONE PROJECT

Complete the following two courses:

MMS U700	Multimedia Capstone 1	4 SH
MMS U701	Multimedia Capstone 2	4 SH

###### MULTIMEDIA ELECTIVE COURSES

Complete three courses from the following list:

ART U160	Photography 1	4 SH
MMS U450	Special Topics in Hypermedia	4 SH
MMS U500	Multimedia Studies History	4 SH
MMS U600	Business, Law, and Multimedia	4 SH
MUS U221	Music and Technology 2	4 SH

##### *Concentration in Graphic Design*

###### INTRODUCTORY COURSES

Complete the following five courses:

ART U130	Visual Studies Foundation 1	4 SH
ART U131	Visual Studies Foundation 2	4 SH
ART U160	Photography 1	4 SH
ART U180	Video Basics	4 SH
ART U290	Introduction to Digital Tools	4 SH

###### INTERMEDIATE AND ADVANCED COURSES

Complete the following seven courses:

ART U332	Design Principles and Drawing	4 SH
ART U333	Design 1 and Drawing	4 SH
ART U334	Typography 1	4 SH
ART U344	Typography 2	4 SH
ART U350	Color in Multiple Media	4 SH
ART U443	Graphic Design 2	4 SH
ART U635	Time-Based Design	4 SH

###### ART HISTORY

Complete the following four courses:

ART U101	History of Art before 1400	4 SH
ART U103	History of Art since 1400	4 SH
ART U240	History of Graphic Design	4 SH
or MMS U500	Multimedia Studies History	4 SH
ART U313	Twentieth-Century Art	4 SH

###### MULTIMEDIA STUDIES

Complete the following four courses:

MMS U300	Narrative for Multimedia	4 SH
MMS U305	Programming for Multimedia	4 SH
MMS U400	Hypermedia	4 SH
MUS U220	Music and Technology 1	4 SH

###### CAPSTONE PROJECT

Complete the following two courses:

MMS U700	Multimedia Capstone 1	4 SH
MMS U701	Multimedia Capstone 2	4 SH

## MULTIMEDIA ELECTIVE COURSES

Complete three courses from the following list:

ART U175	Animation Basics	4 SH
MMS U450	Special Topics in Hypermedia	4 SH
MMS U500	Multimedia Studies History	4 SH
MMS U600	Business, Law, and Multimedia	4 SH
MUS U221	Music and Technology 2	4 SH

*Concentration in Music Technology*

## MUSIC COURSES

Complete the following eight courses:

MUS U220	Music and Technology 1	4 SH
MUS U221	Music and Technology 2	4 SH
MUS U232	Music Recording 1	4 SH
MUS U308	Principles of Music Literature	4 SH
MUS U315	History of Electronic Music	4 SH
MUS U320	Sound Design	4 SH
MUS U331	Music Recording 2	4 SH
MUS U611	Music Technology Capstone/Senior Recital	4 SH

## MUSIC THEORY AND HISTORICAL TRADITIONS

Complete the following six courses:

MUS U201	Music Theory 1	4 SH
MUS U202	Music Theory 2	4 SH
MUS U303	Music Theory 3	4 SH
MUS U304	Music Theory 4	4 SH
MUS U312	Historical Traditions 2: Classical	4 SH
MUS U313	Historical Traditions 3: World	4 SH

## MUSIC COMPOSITION LESSONS

Complete eight hours of music composition (course is repeatable):

MUS U903	Composition Lessons	1 SH
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## MULTIMEDIA STUDIES

Complete the following five courses:

ART U130	Visual Studies Foundation 1	4 SH
ART U290	Introduction to Digital Tools	4 SH
MMS U300	Narrative for Multimedia	4 SH
MMS U305	Programming for Multimedia	4 SH
MMS U400	Hypermedia	4 SH

## MUSIC ENSEMBLE

Complete two music ensembles:

MUS U904	Chorus	1 SH
MUS U905	Band	1 SH
MUS U906	Orchestra	1 SH
MUS U911	Jazz Ensemble	1 SH
MUS U912	Rock Ensemble	1 SH
MUS U913	Blues/Rock Ensemble	1 SH
MUS U914	Create Your Own Music	1 SH
MUS U915	Chamber Ensembles	1 SH

## CAPSTONE PROJECT

Complete the following two courses:

MMS U700	Multimedia Capstone 1	4 SH
MMS U701	Multimedia Capstone 2	4 SH

## MULTIMEDIA ELECTIVE COURSES

Complete two courses from the following list:

ART U160	Photography 1	4 SH
ART U175	Animation Basics	4 SH
MMS U450	Special Topics in Hypermedia	4 SH
MMS U500	Multimedia Studies History	4 SH
MMS U600	Business, Law, and Multimedia	4 SH

## MUSIC TECHNOLOGY ELECTIVE

Complete one course from the following list:

ART U130	Visual Studies Foundation 1	4 SH
ART U180	Video Basics	4 SH
ART U290	Introduction to Digital Tools	4 SH
MMS U305	Programming for Multimedia	4 SH
MMS U400	Hypermedia	4 SH
MUS U233	Music Production for Radio and Web	4 SH
MUS U336	Computer Applications in Music Business	4 SH
MUS U699	Advanced Television Production	4 SH

*Concentration in Photography*

## ART COURSES

Complete the following eight courses:

ART U101	History of Art before 1400	4 SH
ART U103	History of Art since 1400	4 SH
ART U124	Basic Drawing	4 SH
ART U130	Visual Studies Foundation 1	4 SH
ART U131	Visual Studies Foundation 2	4 SH
ART U180	Video Basics	4 SH
ART U290	Introduction to Digital Tools	4 SH
ART U313	Twentieth-Century Art	4 SH

## PHOTOGRAPHY COURSES

Complete the following seven courses:

ART U160	Photography 1	4 SH
ART U330	History of Photography	4 SH
ART U360	Photography 2	4 SH
ART U385	Still Digital Imaging	4 SH
ART U601	Alternative Analog and Digital Processes	4 SH
ART U602	Fine Art Digital Imaging	4 SH
ART U710	Senior Project in Photography 1	6 SH

## MULTIMEDIA STUDIES

Complete the following four courses:

MMS U300	Narrative for Multimedia	4 SH
MMS U305	Programming for Multimedia	4 SH
MMS U400	Hypermedia	4 SH
MUS U220	Music and Technology 1	4 SH

## CAPSTONE PROJECT

Complete the following two courses:

MMS U700	Multimedia Capstone 1	4 SH
MMS U701	Multimedia Capstone 2	4 SH

## MULTIMEDIA ELECTIVE COURSES

Complete three courses from the following list:

ART U175	Animation Basics	4 SH
MMS U450	Special Topics in Hypermedia	4 SH
MMS U500	Multimedia Studies History	4 SH
MMS U600	Business, Law, and Multimedia	4 SH
MUS U221	Music and Technology 2	4 SH

**EXPERIENTIAL EDUCATION REQUIREMENT**

Complete one course in experiential education. Please see department for approved courses.

**MULTIMEDIA STUDIES MAJOR CREDIT REQUIREMENT**

Complete the following semester hours in the major:

84 for multimedia and animation

100 for multimedia and graphic design

106 for multimedia and music technology

98 for multimedia and photography

**GENERAL ELECTIVES**

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

**COOPERATIVE EDUCATION**

If elected

**UNIVERSITY-WIDE REQUIREMENTS**

128 total semester hours required

Transition students are required to complete 132 total semester hours

Minimum 2.000 GPA required

**MUSIC**

[www.music.neu.edu](http://www.music.neu.edu)

ANTHONY P. DE RITIS, PhD  
*Associate Professor and Chair*

**MATTHEWS DISTINGUISHED UNIVERSITY PROFESSOR**

Judith Tick, PhD

**PROFESSORS**

Joshua R. Jacobson, DMA

Dennis H. Miller, DMA

Bruce Ronkin, DMA

**ASSOCIATE PROFESSORS**

Susan Asai, PhD

Leonard L. Brown, PhD

Leon C. Janikian, MM

William Lowe, MA

**ASSISTANT PROFESSORS**

Allen G. Feinstein, MM

Ava Lawrence, MA

Emmett G. Price III, PhD

Richard Strasser, DMA

**VISITING ARTIST**

Virginia Eskin, BA

**ASSISTANT ACADEMIC SPECIALIST**

David A. Herlihy, JD

**LECTURERS**

James S. Anderson, BM

Paul Beaudoin, PhD

Douglas F. Durant, PhD

Ronald Bruce Smith, PhD

**PROFESSOR EMERITUS**

David D. Sonnenschein, DMA

The music department approaches the study of music from a global, multicultural, and multifaceted perspective. The department offers four concentrations in the context of a broad liberal arts program.

The music industry concentration is the first such undergraduate program in Boston. It is designed for students with an interest in fields such as artist management, the music products industry, the record industry, arts administration, contracting and legal issues, the recording process, and studio techniques. Developed in collaboration with Northeastern's College of Business Administration, the music industry concentration leads to a Bachelor of Science degree.

The music history and analysis concentration includes courses in Western classical music, American music, world music, music theory, and ear training. Students may combine this concentration with the minor in music performance, which entails an audition, private lessons, ensemble performance, and two recitals. They may also combine this concentration with a minor in music industry, ethnomusicology, or music theatre. The music history and analysis concentration leads to a Bachelor of Arts degree.

The music technology concentration teaches students to compose music using the newest electronic music technology, both hardware and software. Students learn techniques such as MIDI sequencing, digital and analog recording, sound design, audio for video, and the latest methods for delivering music over the Internet. Students also study composition for both acoustic and electronic instruments. The concentration includes a thorough background in the fundamentals of music, including music theory and history, and leads to a Bachelor of Science degree.

Through an exchange program, students may attend classes at the New England Conservatory of Music. Students also share an array of high-tech and multimedia equipment.

While some music courses are designed for music majors, the department also offers elective survey courses. Several of these courses fulfill the College of Arts and Sciences core curriculum requirement.

An extensive concert series offers a variety of performances by students, faculty, and guest artists. Students also have the opportunity to participate in active choral groups, bands, chamber ensembles, and the University orchestra. See pages 407–414 for course descriptions.

## BA in Music with Concentration in Music History and Analysis

### COLLEGE OF ARTS AND SCIENCES

#### BA CORE REQUIREMENTS

See page 46 for requirement list.

#### MUSIC REQUIREMENTS FOR MUSIC HISTORY AND ANALYSIS CONCENTRATION

##### *Music Theory and Musicianship*

Complete the following eight courses. Music theory courses and musicianship courses should be taken concurrently, as indicated:

MUS U201	Music Theory 1	4 SH
with MUS U241	Musicianship 1	1 SH
MUS U202	Music Theory 2	4 SH
with MUS U242	Musicianship 2	1 SH
MUS U303	Music Theory 3	4 SH
with MUS U343	Musicianship 3	1 SH
MUS U304	Music Theory 4	4 SH
with MUS U344	Musicianship 4	1 SH

##### *Music History*

Complete the following four courses. MUS U550 can be taken multiple times:

MUS U311	Historical Traditions 1: America	4 SH
MUS U312	Historical Traditions 2: Classical	4 SH
MUS U313	Historical Traditions 3: World	4 SH
MUS U550	Historical Traditions 4: Special Topics	4 SH

##### *Music Literature*

Complete the following course:

MUS U308	Principles of Music Literature	4 SH
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##### *Piano Class*

Complete the following course:

MUS U205	Piano Class 1	4 SH
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##### *Music Ensemble*

Complete five music ensembles:

MUS U904	Chorus	1 SH
MUS U905	Band	1 SH
MUS U906	Orchestra	1 SH
MUS U911	Jazz Ensemble	1 SH
MUS U912	Rock Ensemble	1 SH
MUS U913	Blues/Rock Ensemble	1 SH
MUS U914	Create Your Own Music	1 SH
MUS U915	Chamber Ensembles	1 SH

#### EXPERIENTIAL EDUCATION REQUIREMENT

Complete one course in experiential education. Please see department for approved courses.

#### MUSIC HISTORY AND ANALYSIS MAJOR CREDIT REQUIREMENT

Complete 49 semester hours in the major.

#### UPPER-DIVISION ELECTIVES

Complete three general electives at 300 level or above. None of these courses may be in physical education or dance.

#### GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

#### COOPERATIVE EDUCATION

If elected

#### UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required

Transition students are required to complete 132 total semester hours

Minimum 2.000 GPA required

## BS in Music with Concentration in Music Industry

### COLLEGE OF ARTS AND SCIENCES BS CORE REQUIREMENTS FOR ARTS/HUMANITIES MAJORS

See page 48 for requirement list.

#### MUSIC INDUSTRY REQUIREMENTS

##### *Music Theory Requirement*

Complete the following two courses:

MUS U203	Music Theory for Music Industry 1	4 SH
MUS U204	Music Theory for Music Industry 2	4 SH

##### *Music History*

Complete the following four courses. MUS U550 can be taken multiple times:

MUS U311	Historical Traditions 1: America	4 SH
MUS U312	Historical Traditions 2: Classical	4 SH
MUS U313	Historical Traditions 3: World	4 SH
MUS U550	Historical Traditions 4: Special Topics	4 SH

##### *Music Literature*

Complete the following course:

MUS U308	Principles of Music Literature	4 SH
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##### *Music Ensemble*

Complete two music ensembles:

MUS U904	Chorus	1 SH
MUS U905	Band	1 SH
MUS U906	Orchestra	1 SH
MUS U911	Jazz Ensemble	1 SH
MUS U912	Rock Ensemble	1 SH
MUS U913	Blues/Rock Ensemble	1 SH
MUS U914	Create Your Own Music	1 SH
MUS U915	Chamber Ensembles	1 SH

##### *Music Industry*

Complete the following three courses:

MUS U230	Music Industry 1	4 SH
MUS U231	Music Industry 2	4 SH
MUS U601	Seminar in Music Industry	4 SH

##### *Music Industry Electives*

Complete four of the following courses:

MUS U220	Music and Technology 1	4 SH
MUS U221	Music and Technology 2	4 SH
MUS U232	Music Recording 1	4 SH
MUS U233	Music Production for Radio and Web	4 SH
MUS U330	Performing Arts Administration	4 SH
MUS U331	Music Recording 2	4 SH

MUS U332	Artist Management	4 SH
MUS U333	The Record Industry	4 SH
MUS U334	Music Merchandising	4 SH
MUS U335	Copyright Law for Musicians	4 SH
MUS U336	Computer Applications in Music Business	4 SH
MUS U337	Writing about Music	4 SH
MUS U338	Music Industry Marketing and Promotion	4 SH
MUS U530	Music Entrepreneurship	4 SH

### BUSINESS COURSE REQUIREMENTS

#### Economics

Complete the following two courses:

ECN U115	Principles of Macroeconomics	4 SH
ECN U116	Principles of Microeconomics	4 SH

#### Accounting

Complete the following course:

ACC U201	Financial Accounting and Reporting	4 SH
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#### Business Electives

Complete two business courses from the following departments:

ACC, CBA, FIN, HRM, MGT, MKT, or MSC.

### EXPERIENTIAL EDUCATION REQUIREMENT

Complete one course in experiential education. Please see department for approved courses.

### MUSIC INDUSTRY MAJOR CREDIT REQUIREMENT

Complete 78 semester hours in the major.

### GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

### COOPERATIVE EDUCATION

If elected

### UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required

Transition students are required to complete 132 total semester hours

Minimum 2.000 GPA required

### BS in Music with Concentration in Music Technology

#### COLLEGE OF ARTS AND SCIENCES BS CORE REQUIREMENTS FOR ARTS/HUMANITIES MAJORS

See page 48 for requirement list.

### GENERAL MUSIC REQUIREMENTS

#### Music Theory and Musicianship

Complete the following eight courses. Music theory courses and musicianship courses should be taken concurrently, as indicated:

MUS U201	Music Theory 1	4 SH
with MUS U241	Musicianship 1	1 SH
MUS U202	Music Theory 2	4 SH
with MUS U242	Musicianship 2	1 SH
MUS U303	Music Theory 3	4 SH
with MUS U343	Musicianship 3	1 SH
MUS U304	Music Theory 4	4 SH
with MUS U344	Musicianship 4	1 SH

#### Music History

Complete the following three courses:

MUS U311	Historical Traditions 1: America	4 SH
MUS U312	Historical Traditions 2: Classical	4 SH
MUS U313	Historical Traditions 3: World	4 SH

#### Music Literature

Complete the following course:

MUS U308	Principles of Music Literature	4 SH
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#### Music Composition

Complete the following course:

MUS U420	Music Composition	4 SH
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#### Composition Lessons

Complete the following (repeatable) course seven times:

MUS U903	Composition Lessons	1 SH
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#### Ensemble

Complete two music ensembles:

MUS U904	Chorus	1 SH
MUS U905	Band	1 SH
MUS U906	Orchestra	1 SH
MUS U911	Jazz Ensemble	1 SH
MUS U912	Rock Ensemble	1 SH
MUS U913	Blues/Rock Ensemble	1 SH
MUS U914	Create Your Own Music	1 SH
MUS U915	Chamber Ensembles	1 SH

### MUSIC TECHNOLOGY REQUIREMENTS

#### Music Technology

Complete the following four courses:

INT U257	Music Technology ELMO: The Science of Sound and Music	4 SH
MUS U220	Music and Technology 1	4 SH
MUS U221	Music and Technology 2	4 SH
MUS U315	History of Electronic Music	4 SH

#### Recording Studio

Complete the following three courses:

MUS U232	Music Recording 1	4 SH
MUS U331	Music Recording 2	4 SH
MUS U421	Digital Audio Processing	4 SH

#### Electronic Composition and Performance

Complete the following four courses:

MUS U320	Sound Design	4 SH
MUS U520	Interactive Real-Time Performance	4 SH
MUS U610	Composition for Electronic Instruments	4 SH
MUS U611	Music Technology Capstone/Senior Recital	4 SH

#### Music Technology Electives

Complete one course from the following list:

ART U130	Visual Studies Foundation 1	4 SH
ART U180	Video Basics	4 SH
ART U290	Introduction to Digital Tools	4 SH
MMS U305	Programming for Multimedia	4 SH
MMS U400	Hypermedia	4 SH
MUS U233	Music Production for Radio and Web	4 SH
MUS U336	Computer Applications in Music Business	4 SH
MUS U699	Advanced Television Production	4 SH

**EXPERIENTIAL EDUCATION REQUIREMENT**

Complete one course in experiential education. Please see department for approved courses.

**MUSIC TECHNOLOGY MAJOR CREDIT REQUIREMENT**

Complete 97 semester hours in the major.

**GENERAL ELECTIVES**

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

**COOPERATIVE EDUCATION**

If elected

**UNIVERSITY-WIDE REQUIREMENTS**

128 total semester hours required

Transition students are required to complete 132 total semester hours

Minimum 2.000 GPA required

**Minor in General Music****MUSIC THEORY AND MUSICIANSHIP**

Complete the following four courses. Music Theory and Musicianship should be taken concurrently as indicated:

MUS U201	Music Theory 1	4 SH
with MUS U241	Musicianship 1	1 SH
MUS U202	Music Theory 2	4 SH
with MUS U242	Musicianship 2	1 SH

**PRINCIPLES IN MUSIC LITERATURE**

Complete the following course:

MUS U308	Principles of Music Literature	4 SH
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**MUSIC HISTORY ELECTIVE**

Complete one course from the following list:

MUS U311	Historical Traditions 1: America	4 SH
MUS U312	Historical Traditions 2: Classical	4 SH
MUS U313	Historical Traditions 3: World	4 SH
MUS U315	History of Electronic Music	4 SH
MUS U550	Historical Traditions 4: Special Topics	4 SH

**MUSIC ELECTIVE**

Complete one course from the Department of Music.

**GPA REQUIREMENT**

2.000 GPA required in the minor

**Minor in Ethnomusicology****REQUIRED COURSES**

Complete the following four courses. MUS U201 and MUS U241 should be taken concurrently:

MUS U201	Music Theory 1	4 SH
with MUS U241	Musicianship 1	1 SH
MUS U308	Principles of Music Literature	4 SH
MUS U350	Introduction to Ethnomusicology	4 SH

Music industry majors may substitute the following course for MUS U201:

MUS U203	Music Theory for Music Industry 1	4 SH
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**ETHNOMUSICOLOGY ELECTIVES**

Complete three of the following courses:

MUS U104	Survey of African-American Music	4 SH
MUS U127	Introduction to World Music	4 SH
MUS U128	Music of Africa	4 SH
MUS U130	Music of Asia	4 SH
MUS U131	Music of Latin America and the Caribbean	4 SH
MUS U132	Music of the Jewish People	4 SH

**GPA REQUIREMENT**

2.000 GPA required in the minor

**Minor in Music Industry****MUSIC THEORY AND LITERATURE**

Complete the following two courses:

MUS U101	Introduction to Music	4 SH
or MUS U308	Principles of Music Literature	4 SH
MUS U203	Music Theory for Music Industry 1	4 SH
or MUS U201	Music Theory 1	4 SH

**MUSIC INDUSTRY**

Complete the following two courses:

MUS U230	Music Industry 1	4 SH
MUS U231	Music Industry 2	4 SH

**MUSIC INDUSTRY ELECTIVES**

Complete two music industry courses.

**GPA REQUIREMENT**

2.000 GPA required in the minor

**Minor in Music Performance**

Restricted to music majors.

**MUSIC THEORY AND MUSICIANSHIP**

Complete the following eight courses. Music Theory and Musicianship should be taken concurrently, as indicated.

Music industry majors take program-specific music theory courses, as outlined below. A minimum grade of C or better is required in music theory courses:

MUS U201	Music Theory 1	4 SH
with MUS U241	Musicianship 1	1 SH
MUS U202	Music Theory 2	4 SH
with MUS U242	Musicianship 2	1 SH
MUS U303	Music Theory 3	4 SH
with MUS U343	Musicianship 3	1 SH
MUS U304	Music Theory 4	4 SH
with MUS U344	Musicianship 4	1 SH

**Music Industry Majors Only**

MUS U203	Music Theory for Music Industry 1	4 SH
with MUS U241	Musicianship 1	1 SH
MUS U204	Music Theory for Music Industry 2	4 SH
with MUS U242	Musicianship 2	1 SH
MUS U303	Music Theory 3	4 SH
with MUS U343	Musicianship 3	1 SH
MUS U304	Music Theory 4	4 SH
with MUS U344	Musicianship 4	1 SH

**PERFORMANCE PRACTICE**

Complete the following course:

MUS U621 Seminar in Performance Practice 4 SH

**MUSIC LESSONS**

Complete the following (repeatable) course three times:

MUS U901 Music Lessons 1 1 SH

**MUSIC RECITALS**

Complete the following two courses:

MUS U410 Recital 1 1 SH

MUS U622 Recital 2 1 SH

**MUSIC ENSEMBLE**

Complete seven music ensembles:

MUS U904 Chorus 1 SH

MUS U905 Band 1 SH

MUS U906 Orchestra 1 SH

MUS U911 Jazz Ensemble 1 SH

MUS U912 Rock Ensemble 1 SH

MUS U913 Blues/Rock Ensemble 1 SH

MUS U914 Create Your Own Music 1 SH

MUS U915 Chamber Ensembles 1 SH

**GPA REQUIREMENT**

2.000 GPA required in the minor

**Minor in Music Theatre****MUSIC THEORY, LITERATURE, AND THEATRE**

Complete the following four courses:

MUS U201 Music Theory 1 4 SH

with MUS U241 Musicianship 1 1 SH

MUS U308 Principles of Music Literature 4 SH

THE U310 American Musical Theatre 4 SH

**MUSIC HISTORY ELECTIVE**

Complete one course from the following list:

MUS U311 Historical Traditions 1: America 4 SH

MUS U312 Historical Traditions 2: Classical 4 SH

MUS U313 Historical Traditions 3: World 4 SH

MUS U315 History of Electronic Music 4 SH

MUS U550 Historical Traditions 4: Special Topics 4 SH

**VOICE LESSONS**

Complete four semesters of voice lessons (courses are repeatable):

MUS U901 Music Lessons 1 1 SH

MUS U902 Music Lessons 2 1 SH

**PERFORMANCE: CHORUS**

Complete four semesters of chorus:

MUS U904 Chorus 1 SH

**MUSIC ELECTIVE**

Complete one course from the Department of Music.

**GPA REQUIREMENT**

2.000 GPA required in the minor

**PHILOSOPHY AND RELIGION**

[www.philosophy.neu.edu](http://www.philosophy.neu.edu)

SUSAN M. SETTA, PhD

*Associate Professor and Chair*

**PROFESSOR**

Stephen L. Nathanson, PhD

**ASSOCIATE PROFESSORS**

William J. DeAngelis, PhD

Patricia M. L. Illingworth, JD, PhD

Michael R. Lipton, PhD

**ASSISTANT PROFESSORS**

M. Whitney Kelting, PhD

Ronald L. Sandler, PhD

**LECTURERS**

D. Kerry Dugan, MEd

Margaret C. Huff, PhD

Michael C. Meyer, PhD

Philosophy addresses questions and theories related to morality, society, religion, and the natural and social sciences. The study of philosophy challenges students to examine, through critical reflection, their beliefs in many areas.

Courses aim to provide students with an understanding of the methods and traditions of philosophical and religious thought. Through readings, discussion, and writing, students examine questions concerning the nature and validity of religious beliefs, moral judgments, political ideas, and scientific theories, as well as questions about values and social policy in such areas as law, medicine, and technology.

Course work in philosophy can strengthen the student's work in other areas. Philosophy majors enter diverse careers, ranging from college-level teaching to law and business. The program strives to help students sharpen their critical abilities. The department offers three ways to major in philosophy: the standard major, the concentration in law and ethics, and the concentration in religious studies. See pages 419–424 for course descriptions.

**BA/BS in Philosophy****COLLEGE OF ARTS AND SCIENCES BA CORE REQUIREMENTS OR BS CORE REQUIREMENTS FOR ARTS/HUMANITIES MAJORS**

For BA core, see page 46 for requirement list.

For BS core, see page 48 for requirement list.

**CONCENTRATION**

Complete either the philosophy generalist requirements, the concentration in law and ethics, or the concentration in religious studies.

**Philosophy Generalist****PHILOSOPHY REQUIRED COURSES**

Complete the following three courses:

PHL U115	Introduction to Logic	4 SH
or PHL U215	Symbolic Logic	4 SH
PHL U325	Ancient Philosophy	4 SH
PHL U330	Modern Philosophy	4 SH

**ADVANCED PHILOSOPHY ELECTIVE**

Complete one course from the following list:

PHL U435	Moral Philosophy	4 SH
PHL U500	Theory of Knowledge	4 SH
PHL U505	Metaphysics	4 SH
PHL U535	Philosophy of Mind	4 SH

**PHILOSOPHY SEMINAR**

Complete one seminar:

PHL U605	Advanced Seminar: Spinoza (pending approval)	4 SH
PHL U901	Topics in Philosophy Seminar	4 SH
PHL U902	Great Philosophers Seminar	4 SH
PHL U903	Seminar in Religion	4 SH

**ADDITIONAL ELECTIVES**

Complete four additional electives in philosophy.

**Concentration in Law and Ethics****PHILOSOPHY REQUIRED COURSES**

Complete the following four courses:

PHL U115	Introduction to Logic	4 SH
or PHL U215	Symbolic Logic	4 SH
PHL U325	Ancient Philosophy	4 SH
PHL U330	Modern Philosophy	4 SH
PHL U435	Moral Philosophy	4 SH

**PHILOSOPHY SEMINAR**

Complete one course from the following list:

PHL U605	Advanced Seminar: Spinoza (pending approval)	4 SH
PHL U901	Topics in Philosophy Seminar	4 SH
PHL U902	Great Philosophers Seminar	4 SH
PHL U903	Seminar in Religion	4 SH

**PHILOSOPHY ELECTIVE**

Complete one course in philosophy.

**LAW-RELATED ELECTIVES**

Complete two courses from the social science departments listed below. Courses are to be chosen in consultation with department: AFR, ECN, HS, HST, IAF, LIN, POL, PSY, SOA, or SOC.

**Concentration in Religious Studies****PHILOSOPHY REQUIRED COURSES**

Complete the following four courses:

PHL U115	Introduction to Logic	4 SH
or PHL U215	Symbolic Logic	4 SH
PHL U325	Ancient Philosophy	4 SH
PHL U330	Modern Philosophy	4 SH
PHL U435	Moral Philosophy	4 SH

**RELIGIOUS STUDIES COURSES**

Complete three elective courses. See department for an approved list.

**PHILOSOPHY SEMINAR**

Complete one seminar:

PHL U605	Advanced Seminar: Spinoza (pending approval)	4 SH
PHL U901	Topics in Philosophy Seminar	4 SH
PHL U902	Great Philosophers Seminar	4 SH
PHL U903	Seminar in Religion	4 SH
PHL U904	Major Figures in Religious Studies	4 SH

**PHILOSOPHY ELECTIVE**

Complete one elective course in philosophy.

**EXPERIENTIAL EDUCATION REQUIREMENT**

Complete one course in experiential education. Please see department for approved courses.

**PHILOSOPHY MAJOR CREDIT REQUIREMENT**

Complete 36 semester hours in the major.

**UPPER-DIVISION ELECTIVES**

Complete three general electives at 300 level or above. None of these courses may be in physical education or dance.

**GENERAL ELECTIVES**

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

**COOPERATIVE EDUCATION**

If elected

**UNIVERSITY-WIDE REQUIREMENTS**

128 total semester hours required

Transition students are required to complete 132 total semester hours

Minimum 2.000 GPA required

**BA in Cinema Studies and Philosophy**

See page 73.

**BS in Physics and Philosophy**

See page 128.

**Minor in Philosophy****REQUIRED COURSES**

Complete the following two courses:

PHL U325	Ancient Philosophy	4 SH
PHL U330	Modern Philosophy	4 SH

**ELECTIVE COURSES**

Complete three philosophy courses.

**GPA REQUIREMENT**

2.000 GPA required in the minor

**Minor in Religious Studies****REQUIRED COURSES**

Complete the following four courses:

PHL U150	Understanding the Bible	4 SH
PHL U275	Eastern Religions	4 SH
PHL U280	Islam	4 SH
PHL U390	Cults and Sects	4 SH

**ELECTIVE COURSE**

Complete one religious studies elective.

**GPA REQUIREMENT**

2.000 GPA required in the minor

**PHYSICS**

[www.physics.neu.edu](http://www.physics.neu.edu)

JORGE V. JOSÉ, DRSC

*Matthews Distinguished University Professor and Chair*

**MATTHEWS DISTINGUISHED UNIVERSITY PROFESSORS**

Pran Nath, PhD

Stephen Reucroft, PhD

Fa-Yueh Wu, PhD

**COLLEGE OF ARTS AND SCIENCES  
DISTINGUISHED PROFESSORS**

Alain S. Karma, PhD

Srinivas Sridhar, PhD

**PROFESSORS**

Arun Bansil, PhD

Paul M. Champion, PhD

Haim Goldberg, PhD

Donald E. Heiman, PhD

Robert P. Lowndes, PhD

Robert S. Markiewicz, PhD

Jeffrey B. Sokoloff, PhD

Yogendra N. Srivastava, PhD

Tomasz Taylor, PhD

Michael T. Vaughn, PhD

Allan Widom, PhD

**ASSOCIATE PROFESSORS**

George O. Alverson, PhD

Nathan Israeloff, PhD

Sergey Kravchenko, PhD

J. Timothy Sage, PhD

John D. Swain, PhD

Darien Wood, PhD

**ASSISTANT PROFESSORS**

Emanuela Barberis, PhD

Latika Menon, PhD

Armen Stepanyants, PhD

Mark C. Williams, PhD

**PROFESSORS EMERITI**

Petros N. Argyres, PhD

Alan H. Cromer, PhD

Michael J. Glaubman, PhD

Bertram J. Malenka, PhD

Clive H. Perry, PhD

Eugene J. Saletan, PhD

Carl Shiffman, PhD

Eberhard von Goeler, PhD

**P**hysics examines the fundamental principles that govern natural phenomena, ranging in scale from collisions of subatomic particles, through the behavior of solids, liquids, and biomolecules, to exploding stars and colliding galaxies.

The program aims to help students experience the intellectual stimulation of studying physics and astrophysics and the excitement of frontline research; understand the basic principles and techniques of physics-related careers; and prepare for graduate study in physics or related fields.

The department offers four levels of undergraduate courses: descriptive courses for nonscience majors with limited mathematical background; general survey courses for students in scientific and engineering fields; advanced courses primarily intended for physics majors; and highly advanced courses primarily intended for prospective graduate students.

In addition to work in industrial, government, or high-technology laboratories in areas of applied physics, students may find opportunities in such fields as biological physics, computer science, geophysics, medical and radiation physics, and engineering. Many physics majors pursue advanced degrees in physics and related fields.

Undergraduates have the option of majoring in biomedical physics. At the most basic level, biomedical physics seeks to understand the role of physical processes occurring on molecular, cellular, or macroscopic scales, in vital biological functions, ranging from the extraction of oxygen from the lungs by red blood cells to the generation of complex electrical signals in the brain and nervous system. At the most practical level, biomedical physics examines how physical principles and modern instrumentation techniques can be used in a rapidly increasing number of medical applications, ranging from imaging tissue structures and organ functions, to detecting and curing diseases, to performing sophisticated surgeries.

See pages 424–428 for course descriptions.

**BS in Physics****COLLEGE OF ARTS AND SCIENCES BS CORE  
REQUIREMENTS FOR NATURAL SCIENCE MAJORS**

See page 48 for requirement list.

**BREADTH COURSES FOR PHYSICS****Mathematics**

Complete the following six courses:

MTH U241	Calculus 1 for Science and Engineering	4 SH
MTH U242	Calculus 2 for Science and Engineering	4 SH
MTH U341	Calculus 3 for Science and Engineering	4 SH