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# Office of the Registrar



Main titles for Supplement to the Undergraduate Catalog 2005-2007

The University
Undergraduate Education
Undergraduate Schools and Courses
Cross-School Programs
Judd A. and Marjorie Weinberg College of Arts and Sciences
School of Communication
School of Education and Social Policy
Robert R. McCormick School of Engineering and Applied Sciences
Medill School of Journalism
School of Music
Administration and Faculty

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students Information for Faculty and Staff | Calendars | The Undergraduate Catalog Information for Former Students | Statistics | Consumer Information

Office of the Registrar | Northwestern Home





Return to Supplement to the Undergraduate Catalog 2005-2007

The University: Supplement to the Undergraduate Catalog 2005-2007

There are no entries for the Supplement to the Undergraduate Catalog 2005-2007 under this title.

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students
Information for Faculty and Staff | Calendars | The Undergraduate Catalog
Information for Former Students | Statistics | Consumer Information
Office of the Registrar | Northwestern Home





Return to Supplement to the Undergraduate Catalog 2005-2007

**Undergraduate Education: Supplement to the Undergraduate Catalog 2005-2007** 

**Academic Integrity** 

**Page: 31** 

## **Description of Change:**

A student charged with academic dishonesty may not change his or her registration in the course in which the charge is pend-ing or in which a finding of academic dishonesty has been made, nor may a student receive a University degree while a charge of academic dishonesty is pending or while a suspension imposed pursuant to these policies is in effect. Information on procedures that will be followed in cases of alleged dishonesty can be obtained from the dean's office of each school. A complete statement of the University's principles regarding academic integrity can be obtained from the Office of the Provost.

### New text:

A student may not change his or her registration in a course in which a violation of the guidelines of academic integrty has been alleged or is pending or in which a finding of a violation has been made, nor may a student receive a University degree while a charge of a violation of the guidleines of academic integrity is alleged or is pending or while a suspension imposed pursuant to these policies is in effect. Information on procedures that will be followed in cases of alleged dishonesty can be obtained from the dean's office of each school. A complete statement of the University's principles regarding academic integrity can be obtained from

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students
Information for Faculty and Staff | Calendars | The Undergraduate Catalog
Information for Former Students | Statistics | Consumer Information
Office of the Registrar | Northwestern Home





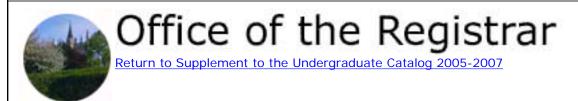
Return to Supplement to the Undergraduate Catalog 2005-2007

Undergraduate Schools and Courses: Supplement to the Undergraduate Catalog 2005-2007

There are no entries for the Supplement to the Undergraduate Catalog 2005-2007 under this title.

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students
Information for Faculty and Staff | Calendars | The Undergraduate Catalog
Information for Former Students | Statistics | Consumer Information
Office of the Registrar | Northwestern Home





Cross-School Programs: Supplement to the Undergraduate Catalog 2005-2007

## **Art and Technology**

**Page:** 37

## **Description of Change:**

Delete this entry; the program no longer exists.

New text:

Minor/Certificate in Art and Technology

**Page:** 37

## **Description of Change:**

Delete all text; this program no longer exists.

New text:

**Music Theatre** 

**Page:** 43

## **Description of Change:**

Add text above the existing text.

Under heading, add the following:

Music Theatre is one of the most popular forms of entertainment in America. Northwestern University's Music Theatre Certificate Program combines the extensive resources of the School of Music's voice and opera program and the School of Communication's theatre department in a challenging curriculum that prepares studetns for careers as music theatre artists.

**Page:** 43

## **Description of Change:**

Correct text.

Delete: "The auditions are held annually in the spring quarter and are limited to freshman and sophomore theatre and voice majors. Auditioners are required to perform a vocal selection and a monologue and to participate in a dance audition."

Replace with the following:

### New text:

Admission

The Music Theatre Certificate Program is highly selective. Only thirty (30) students are admitted each year. Theatre majors and Voice majors audition in their freshman or sophomore year, performing a vocal selection, a monologue, and a dance audition. Auditions are held annually in May.

**Page:** 43

## **Description of Change:**

Add text.

Following "...annually in May."

Add the following:

#### New text:

Curriculum

Through the program, in addition to their regular major coursework, theatre majors enroll in School of Music courses, including two years of voice lessons. Voice majors take theatre courses, including three quarters of acting, in the School of Communication in addition to their regular major coursework. All students take dance classes offered by the theatre department's dance program.

**Certificate Requirements for Voice Majors** 

**Page:** 43

## **Description of Change:**

Add text.

below "Certificate Requirements for Voice Majors" add the following:

Voice majors complete all requirements for a degree in Music, including basic studies (music theory and history, aural and keyboard skills, and ensembles), voice performance, and liberal arts.

To earn a certificate in music theatre, voice majors must take seven units fo credit and three noncredit courses in the following:

**Page:** 43

## **Description of Change:**

Correct text.

Delete "Voice majors must take seven units of credit and four noncredit courses:

- \* THEATRE 243-1,2,3 Acting I: Principles of Charac-terization (3 units)
- \* THEATRE 352-1,2 Music Theatre Techniques (2 units)
- \* THEATRE 367 History of the Lyric Theatre (1 unit)
- \* Design, dance, or acting elective (1 unit)
- \* Dance (3 classes, no credit)"

Replace with the following:

#### New text:

- \*Theatre 243-1,2,3 Acting I: Principles of Characterization: 3 units
- \*Theatre 352-1,2 Music Theatre Techniques: 2 units
- \*Theatre 367 History of the Lyric Theatre: 1 unit
- \*Design, Dance, or Acting elective: 1 unit
- \*Dance- minimum of 3 classes, no credit

**Certificate Requirements for Theatre Majors** 

Page: 44

## **Description of Change:**

Add text.

Following heading "Certificate Requirements for Theatre Majors"

Add the following

#### New text:

Theatre majors complete all requirements for a degree in theatre, including course work in theatre history, design studies, performance practice, and liberal arts. To earn a certificate in music theatre, theatre majors must take seven (7) units of credit and three (3) noncredit courses in the following:

Page: 44

## **Description of Change:**

Correct text.

Delete: "Voice majors must take seven units of credit and four noncredit courses:

- \* THEATRE 243-1,2,3 Acting I: Principles of Charac-terization (3 units)
- \* THEATRE 352-1,2 Music Theatre Techniques (2 units)
- \* THEATRE 367 History of the Lyric Theatre (1 unit)
- \* Design, dance, or acting elective (1 unit)
- \* Dance (3 classes, no credit)"

Replace with the following:

#### New text:

- \*Voice 102: Beginning Voice: 1.5 units \*Music 127: Keyboard Skills: 1 unit
- \*Voice 202: Intermediate Voice: 1.5 units
- \*Theatre 352-1,2: Music Theatre Techniques: 2 units
- \*Theatre 367: History of the Lyric Theatre: 1 unit
- \*Dance- minimum of three (3) classes, no credit

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students
Information for Faculty and Staff | Calendars | The Undergraduate Catalog
Information for Former Students | Statistics | Consumer Information
Office of the Registrar | Northwestern Home





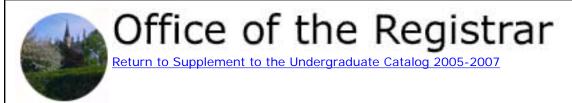
Return to Supplement to the Undergraduate Catalog 2005-2007

Judd A. and Marjorie Weinberg College of Arts and Sciences: Supplement to the Undergraduate Catalog 2005-2007

There are no entries for the Supplement to the Undergraduate Catalog 2005-2007 under this title.

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students
Information for Faculty and Staff | Calendars | The Undergraduate Catalog
Information for Former Students | Statistics | Consumer Information
Office of the Registrar | Northwestern Home





School of Communication: Supplement to the Undergraduate Catalog 2005-2007

## **General Requirements**

Page: 152

## **Description of Change:**

Addition to text after paragraph beginning "Thirty-five of the required 45 units must be completed with grades of A, B, or C grades of C- do not satisfy this requirement).

#### New text:

Courses completed with grades of D or P are only counted in the elective category. Only courses completed with grades of C- or higher can be applied to fulfil distribution requirements, major requirements, minor requirements and adjunct major requirements.

#### **Interdepartmental Studies**

Page: 152

### **Description of Change:**

delete text from the line "...preparation from two closely related ares of communication."

#### New text:

"....preparation from two related areas of communication."

#### Interschool Certificates and Adjunct Major

**Page:** 153

### **Description of Change:**

correct text in heading for this section. Amend "Interschool Certificates and Adjunt Major" to read:

Interschool Academic Options

## **Art and Technology Program**

Page: 153

## **Description of Change:**

Correction to text. Originally: "Art and Technology Program Students majoring in Radio/Television/Film may earn a certificate in art and technology." Replace entire portion with the following:

#### New text:

Animate Arts Adjunct Major

Any Northwestern undergraduate student is eligible to declare an adjunct major in Animate Arts. This course of study provides an interdisciplinary approach to studying and creating new digital media. Its curriculum tightly integrates education in the arts and in technology – particularly computer programming.

The program is structured as an adjunct, interdepartmental major. A limited number of specific introductory courses will be taught in the curriculum and as a senior-level project sequence. Students' electives will come from the existing course offerings of the relevant departments.

## **Adjunct Majors**

**Page:** 153

## **Description of Change:**

Addition to Text. Amend heading "Adjunct Majors" to the following:

### New text:

Adjunct Majors Offered Outside of the School of Communication

## **Introductory and Related Courses**

**Page:** 153

### **New Course**

**GEN\_CMN 115 Freshmen Seminar** 

Small courses will feature investigations of complex contemporary social issues explored in pedgaogially invovative ways--via performance and participation.

#### **Communication Sciences and Disorders**

Page: 154

## **Description of Change:**

Addition to text. The paragraph should be amended to read as follows:

#### New text:

The Roxelyn & Richard Pepper Department of Communication Sciences and Disorders is the locus at Northwestern of basic science and research in human communication and its disorders. It offers clinical training in audiology and hearing sciences, learning disabilities, and speech and language pathology. Undergraduate and graduate curricula emphasize the study of normal human communication and cognition, thereby providing a foundation for the study of disorders of hearing, speech, language and learning. Classroom, clinical and research facilities of the department are located in the Frances Searle building on the Evanston campus, with opportunities to do further clinical work at the Feinberg School of Medicine on the Chicago campus.

The Human Communication Science major in the CS&D department is designed to prepare students for advanced study in a professional, graduate or medical school. Many of our students go on to graduate school in fields related to human communication, which can include communication sciences, linguistics, psychology, neuroscience, and music cognition. Others pursue clinical degrees in audiology, learning disabilities or speech and language pathology. Many premed students choose this major as it prepares students in the basic sciences required of all premeds at the University in addition to the clinical and science courses within the department.

It is also possible to do a Minor in the department.

**Areas of Study for Departmental Majors** 

**Page:** 154

## **Description of Change:**

Delete text. Cut the entire second paragraph and final line. The entire section should read as follows:

#### New text:

The undergraduate program in communication sciences and disorders is designed to provide a thorough background of information about human communication and its disorders. The program emphasizes basic science principles that underlie all human communication and cognition. Students also are introduced to clinical issues and research findings that pertain to disorders of communication and learning. Upon completion of the undergraduate degree (bachelor of science in communication), many students pursue clinically based or research graduate degrees or go on to medical school. Others enter careers in health-related private industry or the public sector.

### **Human Communication Sciences**

**Page:** 154

## **Description of Change:**

Correct text: change the heading of this section from "Human Communication Sciences" to the following:

### New text:

Liberal Arts Major in Human Communication and Preparation for a career in basic science or medicine

**Page:** 154

## **Description of Change:**

Delete and replace text. Delete the following: This area of concentration is particularly well suited to students who plan to attend graduate or professional school in fields such as medicine, dentistry, psychology, biomedical engineering, or neuroscience. It also provides excellent prep-aration for students who plan to pursue graduate study in audiology and hearing sciences, learning disabilities, or speech and language pathology; to conduct research in these areas; or to engage in professional practice. This concentration requires a minimum of 13 courses in the department. In addition to taking a number of basic science courses in the Department of Communication Sciences and Disorders, students in this program must successfully complete 12 sci-ence, mathematics, engineering, and/or psychology courses outside the department with a grade of C or better; grades of C-minus do not satisfy this requirement.

Replace with new text below:

#### New text:

To prepare for a clinical, research or medical degree, students may design a program of study with their adviser that meets the entrance requirements of the particular graduate or medical schools they are planning to attend. Students planning on a career in medicine, dentistry, psychology, biomedical engineering, or neuroscience will take a minimum of 13 courses in the department and 12 mathematics, science, engineering and/or psychology courses outside of the department. These courses must be completed with a grade of C or better; grades of C- do not satisfy this requirement.

### **Audiology and Hearing Sciences**

**Page:** 154

## **Description of Change:**

Correct text. Amend the heading "Audiology and Hearing Sciences" to read as follows:

#### New text:

Preparation for the Doctor of Audiology degree (AUD)

### **Learning Disabilities**

**Page:** 154

## **Description of Change:**

Correct text. Replace heading "Learning Disabilities" with the following:

#### New text:

Preparation for graduate work in the field of Learning Disabilities

## Speech and Language Pathology

**Page:** 155

## **Description of Change:**

Correct text. Replace heading "Speech and Language Pathology" with the following:

#### New text:

Preparation for graduate work in the field of Speech and Language Pathology

**Independent Study** 

Page: 155

## **Description of Change:**

Delete text. Change the existing paragraph to read as follows:

#### New text:

Students in the department may register for units of independent study, in which they work closely with a faculty member on a topic of shared interest. Students who wish to pursue independent study should select courses that may lead to more advanced library or laboratory research.

Requirements for a Major in Communication Sciences and Disorders

Page: 155

#### **Description of Change:**

Delete and replace text. Cut "Specific requirements may vary slightly according to the area of concentration. Students should consult their adviser for details." Replace with the following:

#### New text:

For a major in the Department of Communication Sciences and Disorders, students must take at least 13 courses in the department and two GEN CMN courses. Freshmen are required to take three 100-level introductory courses. Additional courses are recommended to meet the needs of specific post-baccalaureate training, such as graduate or medical school. Students should develop a plan of studies with their academic adviser. The Department also has a writing proficiency requirement that must be fulfilled by all majors.

**Page:** 155

## **Description of Change:**

Add text. Amend "Introductory Courses" to the following:

#### New text:

Core Courses

Introductory-- 100-level

Required of freshmen

1 General Communication course from the following list:

GEN CMN 101-0 Interpersonal Communication

GEN CMN 102-0 Public Speaking

GEN CMN 103-0 Analysis and Performance of Literature

-- and both of the following--

CSD 112-0 The Scientific Exploration of Communication

GEN CMN 108-0 Communication Disorders

**Page:** 155

## **Description of Change:**

Correct text: replace "200 level courses" with the following:

#### New text:

200-level courses

Required

202-0 Neurobiology fo Communication

1 course in Statistics (a CSD statistics course or one from either the Psychology or Statistics departments) Students may request to have their AP statistics credit apply to this requirement. If students are allowed to apply an AP statistics credit or if they take a statistics course from another department in the University, they are still required to take 13 courses in the CS&D department.

Students with a concentration in Speech/Language Pathology or Learning Disabilities may substitute CSD 201-0, Phonetics, or CSD 205-0, Study of Learning and Learning Problems in the Classroom, for one of the 300-level courses required below

**Page:** 155

## **Description of Change:**

Correct text. Replace the line "300- and 400-level courses in communicative disorders: 10 courses (excluding practicum courses), including 307 and at least 1 each in audiology and hearing sciences, learning disabilities, and speech and language pathology" with the following:

#### New text:

10 courses at the 300- or 400-level. These courses must be distributed between the following areas:

At least 3 courses from the Basic Science Courses list:

301 Anatomy and Physiology of the Vocal Mechanism

302 Anatomy and Physiology of the Hearing Mechanism

303 Brain & Cognition

306 Psychoacoustics

307 Acoustic Phonetics

309 Culture Language & Learning

310 Biological Foundations of Speech and Music

314 Topics in Cognitive Neuroscience

320 Physiological Instrumentation

350 Cog. Dev. in Atypical Learners

392 Language Development and Usage

- 399 Independent Study
- 402 Speech Perception
- 406 Functional Neuroanatomy
- 488 Psycho Educational Assessment and Testing Principles

At least 3 courses from the Clinically Related Courses list:

- 318 Introduction to Audiology
- 334 Delivery Systems in Speech and Language Pathology
- 336 Field of Special Education
- 373 Introduction to Learning Disabilities
- 375 Diagnostic Procedures for Exceptional Children
- 376 Remedial Education for Children with Learning Disabilities
- 419 Pediatric Audiology
- 434 Neuropsychology & Learning Disabilities
- 435 Neuromotor Speech Disorders in Adults
- 475 Aphasia
- 438 Dysphagia
- 493 Vocal Physiology and Pathology
- 491 Fluency, Disfluency & Stuttering
- 494 Advanced Study in Disorders of Fluency
- 492 Language Disorders in Preschool Children
- 396 Diagnostic procedures in Speech & Language Pathology

This list is not complete, and students should consult with their advisor for additional courses that might be required for graduate school.

**Page:** 155

## **Description of Change:**

Add text. Above "Electives: 14 courses, at least 8 of which must be outside the department", include the following:

#### New text:

#### Additional Courses:

Students should consult with their adviser for additional courses, both within and outside the department, to meet the needs of graduate or medical school requirements.

Students who transfer into the department after their freshman year may not be required to take the 100-level introductory courses, but should consult with their adviser. If transfer students do not take the 100-level courses, they must still take 13 courses in the department. Ten of those 13 courses must be at the 300- or 400-level, with at least three of those 10 from the basic sciences course list and at least 3 from the clinical course list.

Distribution courses taken from other departments must be passed with a grade of C or above. Students may not take courses from the CS&D department on a P/N basis.

### **Basic Science Courses for Undergraduates and Graduates**

**Page:** 156

## CSD 310-0 Anatomy and Physiology of the Central Hearing Mechanism Description of Change:

change title of course from "Anatomy and Physiology of the Central Hearing Mechanism" to the following

#### New text:

310-0 Bological Foundations of Speech and Music Anatomy and physiology of the central auditory pathway, experience-related neural plasticity, right/left brain specialization, audiovisual integration, auditory learning and perception; neural encoding of speech and music.

Page: 156

## New Course CSD 336 The Field of Special Education

Criteria for in-school evaluation, eligibility, and intervention for students with disabilities. Legal basis of policies and regulations.

Page: 156

## **New Course**

## CSD 342 Typical and Atypical Development in Infants and Toddlers

Theories of normal and atypical child development including: cognition; language; gross and fine motor; social and interpersonal functioning; and intrapsychic functioning during the first three years of life.

Prerequisite: Advanced status in developmental disabilities or permission of the instructor.

**Page:** 156

### **New Course**

## CSD 369 Special Topics in Speech and Language Pathology

Current scientific and professional problems in speech and language pathology. Topics vary by quarter. (Two topics offered in recent years on an annual basis are "Management of Feeding Disorders in Infants and Toddlers" and "Assessment and Treatment of Right Brain Damage and Traumatic Brain Injury")

**Page:** 156

## **New Course**

## CSD CSD 373 Introduction to Learning Disabilities

Psychological, neurological and linguistic theories of language and learning as related to learning disabilities.

Prerequisite: junior standing or above.

**Page:** 157

#### **New Course**

### CSD 375 Diagnostic Procedures for Exceptional Children

Differential diagnostic procedures used in special education. Examination of cognitive and emotional disorders, sensory impairment, physical handicap an dlegal aspects of diagnosis.

**Page:** 157

#### **New Course**

## CSD 398-1,2 Student Teaching in Speech and Language Pathology

Supervised practicum of speech-language pathology services in schools. Participation in parent-teacher conferences and on IEP teams.

Prerequisites: 334, 397

**Page:** 157

#### **New Course**

# CSD 397 Introduction to Clinical Procedures in Speech and Language Pathology

Beginning practicum experience in a clinical setting. Emphasis on planning and executing a remedial program for individuals with problems of speech sound production and language usage.

Prerequisite: consent of instructor.

**Page:** 157

#### **New Course**

### CSD 396 Diagnostic Procedures in Speech and Language Pathology

Evaluation of speech and language disorders. Interviewing, report writing; use of standardized tests; examination of speech, sensory and motor functions. Prerequisites: senior standing or above, CSD 392, or consent of instructor.

**Page:** 157

#### **New Course**

## CSD 392 Langauge Development and Usage

Development of spoken and written language as it relates to child development; includes phonological, morphological, syntactic, semantic and pragmatic components. Cultural and individual linguistic diversity.

**Page:** 157

#### **New Course**

CSD 388 Attention Deficit Disorder and Related Behavior Disorders

Identification and treatment of attention deficit disorder and related childhood behavior disorders. Emphasis on objective and subjective assessment, life-span issues and medical and phsychological interventions.

**Page:** 157

## **New Course**

## CSD 381 Social Development in Normal and Learning-Disabled Children

Current theories of and empirical research on social-emotional development from infancy through adolescence; identification and treatment of social deficits in learning-disabled children.

Page: 157

### **New Course**

## CSD 380 Introduction to Clinical Procedures in Learning Disabilities

Practicum experience in clinical settings. Learning processes and application of instructional approaches. Field studies, reading and weekly seminars.

Prerequisites: 375, 376

Page: 157

#### **New Course**

## CSD 379-1,2 Student Teaching in Learning Disabilities and Related Disorders

First quarter: required continuation of CSD 378-1,2; second quarter: continuation of CSD 379-1.

**Page:** 157

#### **New Course**

### CSD 378-1,2 Student Teaching in Learning Disabilities and Related Disorders

Supervised teaching of exceptional children. Observation and participation in classes of normal-learning children as well as children with learning problems and related disorders

**Page:** 157

#### **New Course**

### CSD 377 Learning Disabilities in Early Childhood

Theoretical issues, assessment and educational principles for young children with learning disabilities. Problems of language, cognition and pre-academic learning are emphasized. Instruction and home management.

**Page:** 157

**New Course** 

## CSD 376 Remedial Education for Children with Learning Disabilities

Theories and intervention principles for disorders of oral language, reading, written language, mathematics and nonverbal learning.

**Page:** 157

### **New Course**

## CSD 374 Behavior Analysis and Management in Children

Theories and application of behavior analysis and management principles. Emphasis on assessment techniques, classroom management approaches and strategies for the facilitation of learning.

Page: 156

#### **New Course**

## CSD 370 Special Topics in Learning Disabilities

Current scientific and professional problems in Learning Disabilities

Page: 156

#### **New Course**

## CSD 343 Family Systems: Theory and Intervention Strategies in Early Intervention

Models of family systems theory and application pertaining to the functioning of families with disabled infants or toddlers. Intervention strategies appropriate for early intervention professionals.

Prerequisite: Advanced status in developmental disabilities or permission of the instructor.

**Page:** 156

### **New Course**

## CSD 339 Early Communication Intervention with Infants and Toddlers

Models of service systems, current practices in early intervention, legislation, infant development processes, and risk factors. Emphasis on individual family service planning, assessment, and intervention.

**Page:** 156

#### **New Course**

CSD 334 Delivery Systems in Speech and Language Pathology

Organization and administration of speech-language pathology services in schools, health care agencies, and private practice. Focus on legislative and ethical issues. Prerequisite: 397 and senior standing.

**Page:** 156

## New Course CSD 318-0 Introduction to Audiology

Introduction to the measurement of hearing in humans. Basic anatomy of the ear, measurement of hearing, and potential disorders of hearing. Lecture and laboratory components.

**Page:** 155

# CSD 202-0 Biological Foundations of Human Communication Description of Change:

Change course title.

#### New text:

Neurobiology of Communication

Human anatomy, physiology, and neurology in relation to communicative behavior. Sensory, perceptual, cognitive, and motor processes.

**Courses for Undergraduates and Graduates** 

**Page:** 156

# CSD Delete this Section: Courses now Listed in Previous Section Description of Change:

Delete this entire section

#### New text:

Delete this portion: this course is now listed in the "Basic Science Courses"

**Courses for Undergraduates and Graduates** 

**Page:** 156

## New Course CSD 000 Delete this section and all courses listed

delete this section; all courses are now contained under the Basic Science list

### **Speech and Language Pathology**

**Page:** 157

## **Description of Change:**

Delete text. Delete this entire section; now these courses are listed in the Basic Science Course section.

#### New text:

**Courses for Undergraduates and Graduates** 

**Page:** 157

## New Course CSD 000 Delete this entire section

These courses are now listed below the Basic Science course listing; delete this entire section.

## **Organizational Communication**

Page: 158

## **Description of Change:**

Delete and Replace text.

Delete "The prerequisite for beginning this specialization is 250. To complete this specialization, students must take 201 and 360 and choose a minimum of three courses from the following: 205, 229, 270, 275, 329, 341, 350, 361, 362, 363, 364, 365, 371, 391, 393, and appropriate sections of 395 chosen in consultation with an adviser."

Replace with the following:

#### New text:

To complete this specialization, students must take 201, 250, 360 and a minimum of three additional courses. See department for a list of elective courses.

### **Communication Industries and Technologies**

**Page:** 158

## **Description of Change:**

Delete and replace text.

Delete "The prerequisite for beginning this specialization is 205. To complete this specialization, students must select a minimum of five courses from the following: 201, 229, 270, 275, 330-1,2, 350, 355, 370, 374, 376, 377, 383, 384, 393, and appropriate sections of 395 chosen in consultation with an adviser."

Replace with:

To complete this specialization, students must take 205, 270 and a minimum of four additional courses. See department for a list of elective courses.

"Rhetoric, Media, and Public Culture"

**Page:** 158

## **Description of Change:**

Delete and replace text.

Delete "The prerequisite for beginning this specialization is 220. To complete this specialization, students must take 210 and select a minimum of four courses from the following: 275, 315, 320, 322, 324, 325-1,2,3, 327, 328, 329, 330, 370, 371, 373, 374, 376, 377, 384, and appropriate sections of 395 chosen in consultation with an adviser."

Replace with the following:

#### New text:

To complete this specialization, students must take 210, 220 and a minimum of four additional courses. See department for a list of elective courses.

#### **Relational Communication**

**Page:** 158

## **Description of Change:**

Delete and replace.

Delete: "The prerequisite for beginning this spe-cialization is 250. To complete this specialization, students must take two core courses, 201 and 241, and select a mini-mum of three courses from the following: 205, 341, 344, 350, 360, 382, and appropriate sections of 395 chosen in consultation with an adviser."

Replace with the following:

#### New text:

To complete this specialization, students must take 201, 241, 250 and a minimum of three additional courses. See department for a list of elective courses.

### **Media and Politics**

**Page:** 159

### **Description of Change:**

Delete and replace text.

Delete: "The prerequisite for beginning this specialization is 205. To complete this specialization, students must take a minimum of three courses from the political leadership group, focusing on the rhetoric and strategies of political persuasion, consisting of 315, 321, 322, 325-1,2,3, 328, 380, and 391; and a minimum of two courses from the citizen

participation group, concerning Americans' beliefs and the ways they respond to political information, consisting of 201, 270, 355, 370, 371, 372, 373, 380, 383, 384, 393, and appropriate sections of 395 chosen in consultation with an adviser."

Replace with the following:

#### New text:

To complete this specialization, students must take 270 and a minimum of three courses from the political leadership group, focusing on the rhetoric and strategies of political persuasion and a minimum of two courses from the citizen participation group, concerning Americans' beliefs and the ways they respond to political information. See department for a list of elective courses.

## **Argumentation and Advocacy**

**Page:** 159

## **Description of Change:**

Delete and replace text.

Delete: "The prerequisite for beginning this special-ization is 220. To complete this specialization, students must select two practice-oriented courses from 215, 221, and GEN CMN 104 as well as three theory-oriented courses from 205, 210, 315, 320, 321, 322, 324, 325-1,2,3, 326, 327, 330-1,2, 363, 391, and appropriate sections of 393 and 395 chosen in consultation with an adviser.

Replace with the following:

#### New text:

To complete this specialization, students must take 220 and a minimum of two practiceoriented courses, and at least three theory-oriented courses. See department for a list of elective courses.

**Courses Primarily for Freshmen and Sophomores** 

**Page:** 160

## New Course COMM\_ST 310-0 Development of Rhetorical Theory

Study of classical and contemporary texts to understand foundational problems, concepts, and claims regarding the political, social and cultural functions of public discourse.

Page: 160

# COMM\_ST 235-0 Philosophy of Language and Communication Description of Change:

Correct text:

Change course number. Delete 335

335-0: Philosophy of Language and Communication

Relationship between language and human communication behavior. How language structures individual world views; the process of meaning formation; therapeutic communication; the experience of creativity.

Courses Primarily for Juniors, Seniors, and Graduate Students

Page: 161

## New Course

COMM\_ST 331 Deliberative Democracy

Examination of the idea that legitimate democracy issues form the public deliberation of citizens. Topics include questions of pluralism, equality, reason, and rhetoric in public deliberation.

Page: 161

## New Course COMM\_ST 366 Organizational Innovation

Organizations and communities depend on innovative ideas, products or processes to help them solve their problems and to grow in new directions. This course will look at a number of interpersonal and organizational variables as they relate to the production, acceptance and adoption of new ideas.

**Page:** 162

## **New Course**

COMM\_ST 385 Technology and the American Cultural Landscape

Research seminar focusing on the history of technology in American culture and how it might affect our experience.

**Page:** 162

## **New Course**

**COMM\_ST 392 Global Culture and Communication** 

Current topics and events will be studied to familiarize students with the cultural dimensions of globalization and the critical importance of culture and communication in understanding the globalized world.

Page: 162

**New Course** 

## COMM\_ST 388 Internet and Society

The social, cultural, political, and economic implications of information technologies.

Page: 161

## New Course COMM\_ST 378 Online Communities

Examination of the types of computer-mediated interactions and the collaborations that occur among people who share common (or perhaps uncommon) interests, and the language that they use to express themselves.

**Page:** 161

# New Course COMM\_ST 343 Health Communication

Examination of how communication can enhance and maintain the well being of citizens in intentional health care contexts.

**Page:** 161

# New Course COMM\_ST 332 The Rhetoric of Multiculturalism

Examination of debates about the meaning and significance of cultural pluralism in American and global politics, and the rhetorical, communicative and political challenges this condition raises.

Page: 161

# New Course COMM\_ST 340 Community Integration of Labeled Peoples

Examination of local integration initiatives, the role of professionals, the language used to describe the initiatives, the social service system's responses, and the agents and communities that have constructed inclusive environments for people labeled with disabilities.

Page: 160

# COMM\_ST 324-0 The Making of the Woman's Oratorical Tradition Description of Change:

Correct text. Change course number and title.

Delete 324-0: The Making of the Woman's Oratorical Tradition

324-1,2 Rhetoric of U.S. Women's Rights

**Page:** 162

# COMM\_ST 394-0 Undergraduate Research Seminar Description of Change:

add text. Following the line "Provides students an opportunity to conduct research." insert the following:

New text:

Prerequisite: 220

**Courses Primarily for Freshmen and Sophomores** 

**Page:** 164

## RTVF 180-0 Media Construction I: Media Literacy Description of Change:

Correct title and change description. Replace "Media Construction I: Media Literacy

Image construction and manipulation; image sequencing; sound and sound-image relations; basics of web design. Pre-requisite for 280. Required for majors; typically taken in freshman year."

with the following:

#### New text:

Media Construction I: Concept and Image Design

Introduces the core components of media: idea, image, sound and sequence. Students use still cameras and digital editing programs. Prerequisite for 280. Required for majors; typically taken in freshman year.

**Page:** 164

# RTVF 280-0 Media Construction II: Sight and Sound Description of Change:

Change course title and description.

Delete "Media Construction II: Sight and Sound

Foundation course in single-camera production, with emphasis on expressive possibilities of lighting. Prerequisites: 180 and 220. Prerequisite to 300-level production courses. Required for majors; typically taken in sophomore year."

Replace with

#### New text:

Media Construction II: The Moving Image and Sync Sound

Explores the challenges and opportunities created by shooting and editing sync sound. Prerequisites: 180, 220. Prerequisite to 300-level production courses. Required for majors;

typically taken in sophomore year.

Courses Primarily for Juniors, Seniors, and Graduate Students

**Page:** 165

New Course RTVF 372 Editing

The technique and art of editing for film. Topics include editing for continuity, controlling pace and rhythm, and editing non-linear narratives. Prerequisites: 280, 380.

**Page:** 165

New Course RTVF 375 Designing for the Internet

Design concepts as they relate to the web in an intensive studio/workshop environment.

Prerequisite: 280

**Page:** 165

New Course RTVF 376 Interactive Media

Exploration of the techniques and aesthetics of interactivity using various mediums.

Prerequisites: 280 and permission of instructor.

**Page:** 165

**New Course** 

RTVF 395-0 Computer Animation: 3D

The fundamental concepts and techniques of 3D computer modeling and animation. Use of concepts acquired in camera-based production techniques to create a rendered animation.

Prerequisite: 280

**Page:** 165

**New Course** 

**RTVF 384 Foundations of Sound Design** 

Aesthetics and techniques of the sound/image relationship in media.

**Page:** 165

**New Course** 

## **RTVF 390 Directing**

Single-camera dramatic directing, including visualization of scripts, breakdown of scripts, camera blocking and working with actors.

Prerequisite: 280

**Page:** 165

#### **New Course**

## RTVF 397-1,2 Advanced Production, Advanced Post-Production

Two-quarter sequence for students creating advanced artistic productions, with critique of work throughout the production and post-production process, and offering conceptual resources as needed. Students may work in any genre (documentary, narrative, experimental) and any medium. Admission by portfolio of previous media work and proposal for project, including script and budget.

**Page:** 165

# RTVF 380-0 Film Production Description of Change:

Correct text: change title and description. Delete "Film Production" and replace with

#### New text:

Lighting and Cinematography

Techniques, aesthetics and technologies of lighting and camera skills, including film and video.

Page: 150

## RTVF 381-0 Video Production Description of Change:

Delete entire course.

New text:

**Page:** 165

## RTVF 392-0 Documentary Production Description of Change:

Correct text: Change description. Replace "Techniques for filmand video, emphasizing preproduction planning, documentary techniques, and ethics. Prerequisites: 313-1 and either 380 or 381."

with the following:

#### New text:

Students examine documentary practices and produce their own short.

Prerequisite: 280

**Page:** 165

## RTVF 394-0 Experimental Film and Video Production Description of Change:

Correct text: change of title and description.

Delete: "Experimental Film and Video Production

Production experience in the making of art film or video; tapes, films, or installations that work outside established genres. Prerequisites: 323-2 and either 380 or 381."

Replace with:

#### New text:

**Experimental Media Production** 

Creation of an experimental work as a linear film or video, an interactive web site, an installation, a game or a multi-disciplinary experience.

Prerequisite: 280

**Page:** 165

## **RTVF 393-0 Computer Animation**

**Description of Change:** 

Correct text: change title and description.

Delete: "Computer Animation

Study and practice of two-dimensional computer graphics and animation."

Replace with:

#### New text:

2D Computer Animation

Animation techniques in the 2D sphere and incorporation of visual design principles.

**Page:** 165

## RTVF 383-0 Radio/Audio Production Description of Change:

change text: delete

"Radio/Audio Production"

Replace with:

### **New text:**

Sound Production

#### **Theatre**

**Page:** 166

## **Description of Change:**

Add text.

After third paragraph ending "...wide spectrum of University offerings."

add the following:

#### New text:

A minor in Theatre is also available. All students at Northwestern are eligible for this minor, with the understanding that no student may major and minor in the same subject. University policy allows students to declare only one minor. Students may apply as early as the spring quarter of their first year for admission to the minor, but students may declare the minor during any spring quarter. Contact the Theatre department for information on declaring the minor and to view the requirements.

A minor in Dance is also available, and the same rules apply. Contact the Dance department for information on declaring the minor and to view the requirements.

#### Requirements for a Major in Theatre

Page: 166

## **Description of Change:**

Add text:

Amend "Introductory courses THEATRE 140-1,2 Theatre in Context (two quarters, includes crews) GEN CMN 110 Voice for Performance 1 course from the following: GEN CMN 101, 102, 103"

to the following:

#### New text:

Introductory courses THEATRE 140-1,2,3 Theatre in Context and Production in Context (three quarters, includes crews) GEN CMN 110 Voice for Performance 1 course from the following: GEN CMN 101, 102, 103"

Page: 166

## **Description of Change:**

Add text:

Following the line "Courses outside communication: 6 courses at the 200 level or above, including at least 3 courses at the 300 level or above (courses taken to meet the distribution requirement may be used)"

Add the following:

#### New text:

Courses used to satisfy major and distribution requirements must be completed with a grade of C- or higher. No grades of D or P can be used to fulfill major or distribution requirements.

**Page:** 167

## **Description of Change:**

Add Text.

Following the end of the line "Electives: note the School of Communication 18-unit requirement (see General Requirements)", add the following:

#### New text:

Theatre Minor

Many students are drawn to Northwestern because of their interest in Theatre and Dance and Northwestern's international reputation for excellence in the fields. Though not all of these students choose to major in Theatre or Dance, many take courses and involve themselves in the life of the department. There is an unfortunate misperception on campus that only majors can study Theatre/Dance, while many faculty can attest to the enrichment that comes to their classroom communities from students whose primary major may be in such schools as WCAS, Music, Engineering, and Journalism, or from the departments of Communication Studies, Radio/Television/Film, and Performance Studies from within the School of Communication.

Academic Requirements:

The Minors in Theatre and Dance encourage students majoring in other fields to organize their artistic studies in a coherent manner. The minor requires students to gain both depth and breadth in the study and practices of Theatre and Dance.

Page: 167

## **Description of Change:**

Add text.

Following the line "....breadth in the study and practices of theatre and dance."

Add the following:

#### New text:

THEATRE: The minor mirrors the course requirements of the major, but on a smaller scale.

- A total of 7 approved courses is required from the following three areas:
- 2 classes in the area of History, Literature, Criticism and Theory;
- 1 class in the area of Performance;
- 1 class in area of Design;
- students form a concentration in one of these three areas by taking 2 additional classes in that area;
- 1 elective reflecting special interests of the student.

For both the Dance and Theatre minors, students must complete a required seven units, at least three of which must be taken at the 300 level or above. Five of these courses must be offered by their respective programs (Theatre/Dance), while two of the seven may be approved courses that come from departments or programs outside of Theatre and Dance (e. g. Performance Studies, Gender Studies, Comparative Literature, etc.) No course for the minor may be taken utilizing the P/N option, and all classes must be completed at a grade of

C- or better in order to be counted toward the minor. A professional advisor will coordinate with the chair to approve individual course programs for students enrolled in the minors.

#### Requirements for a Major in Dance

Page: 170

## **Description of Change:**

Add text.

Following the existing text, add the following:

#### New text:

Dance Minor

Many students are drawn to Northwestern because of their interest in Theatre and Dance and Northwestern's international reputation for excellence in the fields. Though not all of these students choose to major in Theatre or Dance, many take courses and involve themselves in the life of the department. There is an unfortunate misperception on campus that only majors can study Theatre/Dance, while many faculty can attest to the enrichment that comes to their classroom communities from students whose primary major may be in such schools as WCAS, Music, Engineering, and Journalism, or from the departments of Communication Studies, Radio/Television/Film, and Performance Studies from within the School of Communication.

### Academic Requirements:

The Minors in Theatre and Dance encourage students majoring in other fields to organize their artistic studies in a coherent manner. The minor requires students to gain both depth and breadth in the study and practices of Theatre and Dance.

Page: 170

## **Description of Change:**

Delete/Replace Text.

Delete existing text beginning "Introductory courses:" and ending "THEATRE 380 Internship in Theatre Practice"

Replace with the following:

#### New text:

The Dance Program in the Department of Theatre provides a comprehensive curriculum committed to the student's intellectual, artistic, and professional growth. The freshman year provides a solid foundation with movement analysis, anatomy/kinesiology, and world dance traditions. In addition to yearlong course sequences in technique, students create a program within the major by selecting course work from three core areas: performance/ choreography; history/criticism/theory; and professional studies. Study focuses on career opportunities in performance, dance writing, education, choreography, dance therapy, administration, and other professional areas.

#### REQUIREMENTS FOR A MAJOR IN DANCE:

School of Communication General Requirements:

• Of the required 45 courses for the undergraduate degree, the last 23 courses must be taken while the student is enrolled as an undergraduate in Northwestern University, and the

student must be enrolled in the School of Communication for the last three quarters preceding the granting of the degree. Credit for summer work taken at other colleges or universities as part of the last 23 courses requires approval by petition.

• Thirty-five of the required 45 courses must be completed with grades of A, B, or C (grades of C- do not satisfy this requirement). A minimum of 18 courses must be taken outside the School of Communication. No more than 18 of the 45 courses taken for the degree may be taken in the major department.

School of Communication Distribution Requirements:

• All major programs in The School of Communication require 18 courses outside the major department in the following areas: Natural Science, Mathematics, and Technology; Individual and Social Behavior; Humanities and Fine Arts.

### Page:

## **Description of Change:**

Add text.

Following the line "...breadth in the study and practices of Theatre and Dance."

Add the following:

#### New text:

The minor mirrors the course requirements of the major, but on a smaller scale.

- A total of 7 approved courses is required.
- 2 courses from Introduction to the Dance Experience:
- Movement Awareness;
- Dance in Context;
- 1 course must come from the area of History/Theory/Criticism; 1 course must come from the area of Performance;
- 1 unit of Dance technique is required (two classes of different genre, e.g. Modern Dance and Jazz Dance),
- 2 remaining units are to be electives reflecting special interests of the student.

For both the Dance and Theatre minors, students must complete a required seven units, at least three of which must be taken at the 300 level or above. Five of these courses must be offered by their respective programs (Theatre/Dance), while two of the seven may be approved courses that come from departments or programs outside of Theatre and Dance (e. g. Performance Studies, Gender Studies, Comparative Literature, etc.) No course for the minor may be taken utilizing the P/N option, and all classes must be completed at a grade of C- or better in order to be counted toward the minor. A professional advisor will coordinate with the chair to approve individual course programs for students enrolled in the minors.

Page: 170

## **Description of Change:**

add text.

Following the line "A professional advisor will coordinate with the chair to approve individual course programs for students enrolled in the minors."

Add the following:

Department of Theatre Requirements for a Major in Dance

Introductory courses:

Introduction to the Dance Experience:

DANCE 101-1 Movement Awareness

DANCE 101-2 Dance in Context

DANCE 101-3 Introduction to Improvisation

THEATRE 119 (two quarters, no credit) Production Laboratory

Upper Division Core Curriculum:

DANCE 201 Cultural Studies of Dance

DANCE 202 Experiential Anatomy of Performance

DANCE 395 Senior Seminar

• GENERAL COMMUNICATION Course: 1 unit from the following:

101 Interpersonal Communication

102 Public Speaking

103 Analysis and Performance of Literature

108 Processes and Pathologies of Human Communication

110 Voice for Performance

• Dance Techniques (each dance technique class carries .33 units of credit; minimum of 4 units for major; of those 4 units, 1 unit minimum of Modern must be taken sequentially, 1 unit minimum of Jazz must be taken sequentially, each in consecutive quarters in a single year)

DANCE 120 Topic in Preparation for Performance

**DANCE 130 Music Theatre Dance** 

**DANCE 140 Cultural Forms** 

DANCE 150, 250, 350 Modern

DANCE 160, 260, 360 Jazz

DANCE 170, 270, 370 Ballet

DANCE 180, 280, 380 Tap

• At least 6 courses chosen from the following categories:

Performance (minimum 2 courses)

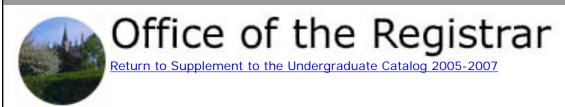
History, Theory, and Criticism (minimum 2 courses)

Professional Studies (minimum 2 courses)

• Three courses beyond the 100 level from the School of Communication

CAESAR | Registration and Courses | Course and Teacher Evaluation Council (CTEC) | Information for Students
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School of Education and Social Policy: Supplement to the Undergraduate Catalog 2005-2007

**Grade and Residency Requuirement** 

Page: 171

# **Description of Change:**

Edit/re-wording of text, right column, second bullet

#### New text:

Students must earn a minimum grade of C- in all their core, concentration and distribution requirements. Students in the human development and psychological services, learning and organizational change, and social policy concentrations are required to maintain a grade poiint average of 2.0 for all coursework presented for the degree. Students accepted into the secondary teaching program must maintain a 2.5 GPA as well as a 2.5 average in their core courses and teaching subject area combined.

**Page:** 172

# **Description of Change:**

EDIT/replace text

## New text:

possesss a minimum cumulative GPA of 2.0, students in the Secondary Teaching concentration must have a GPA of 2.5 in professional core courses and teaching subject are requirements.

Page: 172

# **Description of Change:**

delete text, left cloumn, 4th bullet- starting with have successfully completed

## New text:

## **Description of Change:**

delete text, left column, 5th bullet starting with- demonstrate an understanding of how

New text:

**Page:** 172

# **Description of Change:**

EDIT/REPLACE text, left column- replacing word- Workbook with Handbook.

### New text:

Additional requirements are stipulated in the SESP Undergraduate Handbook. All students are expected to be familiar with and observe these policies.

## **Social Policy**

**Page:** 176

# **Description of Change:**

EDIT/CHANGE to Secondary Teaching Category; right column, first line, omit the word secondary

#### New text:

SESP's interdisciplinary teaching curriculum combines course work in a chosen field from Weinberg College- such as English, histroy, or mathematics- with courses in child and adolescent development, educational philosophy, and urban education.

Page: 176

# **Description of Change:**

EDIT/CHANGE text to Secondary Teaching, right column, 2nd paragraph, first line, omit the word secondary

#### New text:

SESP students: Students enrolled in SESP who wish to pursue teaching certification must complete the following requirements and apply for formal admission to the SESP teacher preparation program (see below). Students completing degree requirements within SESP receive the degree of bachelor of science in education and social policy; 45 units are required for the degree.

Page: 176

# **Description of Change:**

EDIT/CHANGE to text Secondary Teaching, right column, 3rd paragraph, first line, omit the word secondary

#### New text:

Weinberg College Students: Students enrolled in Weinberg College who wish to pursue teaching certification must complete the following requirements and apply for formal admission to the SESP teacher preparation program (see below). Students also must complete a major and fulfill the degree requirements of Weinberg College.

## **Distribution Requirements (15-17 units)**

**Page:** 176

## **Description of Change:**

EDIT/CORRECTION to text, right column, last bullet

### New text:

Mulicultrual (1 course reflecting a non-Western perspective; courses taken in areas III through VI may also fulfill this requirement).

### **Professional Core (11 units)**

**Page: 177** 

## **Description of Change:**

Delete text

### New text:

TEACH ED 341 Teaching and Learning in Social and Cultural Contexts

**Page:** 177

# **Description of Change:**

Course Added to Professional Core requirements

#### New text:

\*TEACH ED 302 Social Contexts of Education

Page:

### **Description of Change:**

New text:

Art (12 units)

Page: 177

## **Description of Change:**

Edit text/correction to text for Art (12 units)

4 introductory courses: Art 120, 125, 140, 150

5 studio courses: Art 222 or 225; Art 231 or 232; or Art 210 or 310; Art 240 or 250; and

any one additional studio course

1 course chosen from Art Histroy: 220, 230, 240, or 250

2 courses chosen from Art 270, 272, 372, or Art Hist 366, 365-2 or 360-1 or -2

2 additional education courses: Teach Ed 328 and 329

## Biological Sciences (12 units)

Page: 177

# **Description of Change:**

Replace text for Biological Sciences (12 units)

#### New text:

Science Core Courses: BIOL 210-1,2,3; CHEM 101, 102, 103; Physics 135-1,2,3 or 130-

1,2,3; GEOL SCI 201; ASTRON 120 or 220

BIOL 301 or 309

**BIOL 315** 

Choose 1 from BIOL 346, 347, 348, 349, 350 or ENVR 202

Additional biology courses of student's choosing to complete the major or, for SESP students-

6 additional BIOL courses.

Note: Students are subject to all pre-requisite requirements.

Page: 177

## **Description of Change:**

courses added for degree requirements

#### New text:

Science: Chemistry

Science Core Courses: BIOL 210-1,2,3; CHEM 101, 102, 103; Physics 135-1,2,3 or 130-

1,2,3; GEOL SCI 201; ASTRON 120 or 220

CHEM 210-1,2,3 or 212-1,2,3

CHEM 342-1

Choose 4 courses from the following: BIOL 301, CHEM 342-2, 316, 329, 333, 335 or 393 Additional courses to meet requirments to complete major, for SESP students- 1 additional

chemistry course.

Note: Students are subject to all pre-requisite requirements.

Page: 177

# **Description of Change:**

courses added for degree requirements

#### New text:

Science: Physics

Science Core Courses: BIOL 210-1,2,3; CHEM 101, 102, 103; Physics 135-1,2,3 or 130-

1,2,3; GEOL SCI 201; ASTRON 120 or 220

Physics 339-1 or 335-0

Additional courses to meet reqquirments to complete major, for SESP students- 7 additional Physics courses.

Note: Students are subject to all pre-requisite requirements.

## Foreign Languages

Page: 177

## **Description of Change:**

Replace Title text: Foreign Language

### New text:

Foreign Language (K-12)

Page: 177

## **Description of Change:**

Edit text for French (12 units), change to

#### New text:

- \* 6 language courses: FRENCH 202, 203, 301, 302, 303, 305
- \* 3 literature courses: FRENCH 210 and 2 additional 300-level literature courses taught in French
- \*2 courses chosen from FRENCH 201, 211, or 355
- \*1 course chosen from FRENCH 380, 390, 391-1 or -2, or 396
- \*Teach Ed 328 and 329

Page: 177

# **Description of Change:**

EDIT/Replace text to German (12 units),

#### New text:

- \* 4 language courses: GERMAN 205, 208, and 2 units of 391 with different topics
- \* 3 literature courses chosen from GERMAN 201-1,2,3,4 or 204
- \* 5 literature and culture courses chosen from GERMAN 301, 310-1,2,3,4, 329, 332
- \* Teach Ed 328 and 329

### Latin (12 units)

Page: 178

# **Description of Change:**

Add course requirement for Latin (12 units),

- \* 3 language courses: LATIN 101-1,2,3
- \* 4 literature courses: LATIN 201-1,2,3, 310
- \* 5 other 200- or 300-level Latin, Greek, or classics courses
- \* Teach Ed 328 and 329

Spanish (12 units)

**Page:** 178

## **Description of Change:**

add new course requirement to Spanish (12 units), adding a 6th and 7th bullet

#### New text:

- \* 3 language and composition courses: SPANISH 201-1,2 or an appropriate substitute for heritage speakers; 202-1 or 207; 202-2
- \* SPANISH 220
- \* 3 literature courses chosen from SPANISH 250, 251, 260, 261
- \* 1 culture and civilization course: SPANISH 360, 361, or 380
- \* 5 additional 300-level courses taught in Spanish, with at least 1 course from a period earlier than 1800
- \*Choose 1 course from SPAN 360, 361, or 380
- \*Teach Ed 328 and 329

Social Sciences

**Page:** 178

### **Description of Change:**

Add new Text for Political Science with Histroy

#### New text:

Pol Sci 220

At least 2 courses chosen from Pol Sci 201, 230, 240, or 250

Pol Sci 395

1 course chosen from Pol Sci 310, 311, or 312

Additional courses to meet the requirements for the major, or for SESP students, 7 additional political science courses.

HIST 201-1&2

HIST 210-1&2

2 additional US Histroy courses

2 non-western histroy courses

**Page:** 178

## **Description of Change:**

Add new text/course for Sociology with Histroy

### New text:

SOCIO 110 or 202 SOCIO 226, 303, 329

Additional course to meet the requirements for the major, or for SESP students, 8 additional sociology courses.

HIST 201-1&2

HIST 210-1&2

2 additional US Histroy courses

2 non-western histroy courses

## History (12 units)

**Page:** 178

## **Description of Change:**

Replace text with new text

#### New text:

HIST 201-1 & 2

HIST 210-1 & 2

2 additional US histroy courses

2 non-western civilization courses (see website or certification office for a list of the courses to choose from).

Additional histroy courses to meet the requirements for a major, or SESP students, 4 additional histroy courses.

At least 3 courses chosen from the following: ANTHRO 214, Econ 201 or 202, GEOG 341, Pol Sci 220, Psych 210, Soc 110, STATS 210 or SESP 210,

### Economics with History (16 units)

Page: 178

# **Description of Change:**

Replace text with new text

#### New text:

ECON 201, 202, 281

ECON 310-1&2 and 311

ECON 323-1&2

Additional courses to meet the requirements for a major, or for SESP students, 4 additional economics courses.

HIST 201-1&2

HIST 210-1&2

2 additional US histroy courses

2 non-western histroy courses

# **Clinical Experiences**

# **Description of Change:**

replace text, first paragragh

#### New text:

Students complete three clinical experiences: a 40-hour nonschool experience (completed during the winter of sophomore or junior year as part of TEACH ED 304); a 100-hour school practicum (typically completed during the fall of senior year); and student teaching (typically completed during the winter of senior year).

#### **Recommendation for Certification**

**Page:** 179

## **Description of Change:**

edit text/replace, right column, first paragraph under "other programs",

#### New text:

he interdisciplinary and flexible nature of SESP concentrations allows many undergraduates to pursue a minor or a second major (in Weinberg College) in addition to their SESP concentration or to enroll in University-wide certificate programs. SESP students are allowed to double count 3 courses between their concentation and second major and 2 courses towards their minor or adjunct second major. Many students also elect to spend one or more quarters in a University-approved study abroad program.

**Core Courses** 

Page: 180

### **New Course**

# **SESP 303 Program Development and Implementation**

Characteristics of successful programs in education, social welfare, human development, and health promotion. Consideration of program design, staff selection, organizational resistance, and inter-agency coordination.

**Human Development and Psychological Services** 

**Page:** 181

# HDPS 303-0 Intervention Strategies Description of Change:

Delete this course from catalog

New text:

**Secondary Teaching** 

# TEACH\_ED 341-0 Teaching and Learning in Social and Cultural Contexts Description of Change:

delete this course from catalog

New text:

**Page:** 183

# TEACH\_ED 389-0 Student Teaching Seminar: Mathematics and Science Description of Change:

This seminar and accompanying internship, which lasts the entire quarter, helps develop teaching methodologiesthrough an intensive clinical experience and teachingunder the supervision of master teachers in the teacher-training schools. Increasingly sophisticated teaching responsibilities and, finally, primary responsibility forteaching a group or a class. Prerequisites: 302; 378 or 379; the applicable methods and techniques course (354-59); successful completion of the practicum experience; an approved contract for the internship experience; consentof the director of undergraduate teacher education; a passing score on the Illinois subject-area test; completion of the first digital portfolio checkpoint.

New text:

**Page:** 182

# New Course TEACH\_ED 302 Social Contexts of Education

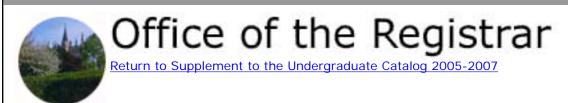
How social contexts such as families, school, and the workplace shape individuals; how individuals intellectual, interpersonal capacities, preferences, and goals are shaped by their social contexts. Societial structors that organize, supply and channel learning and how participating and socializing settings mold the development of individual's capacities.

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Robert R. McCormick School of Engineering and Applied Sciences: Supplement to the Undergraduate Catalog 2005-2007

Page: 184

## **Description of Change:**

Remove Co-op from list of accredited programs for McCormick students. Repair the name of the EAC

#### New text:

... and materials science and engineering are accredited by the Engineering Accreditation Commission of the Accreditation ...

#### **Advanced Placement**

Page: 185

# **Description of Change:**

Amend and clarify several passages.

#### New text:

- ... CEEB tests or other appropriate international examinations or special examinations ...
- ... placement in approved sequential work, verified by a grade above C- in a subsequent course, will reduce ...
- ... placement. Any exemption will reduce the course requirements for the B.S. degree by one course. These stipulations ...

#### **Cooperative Engineering Education Program**

Page: 186

## **Description of Change:**

Delete in column 1 "and the Accreditation Board for Engineering and Technology (ABET)". Delete in column 2 "ABET-accredited"

In column 1 "... which meets standards set by the program and the co-op employer, in order ..."

In column 2 "In some states, co-op experience ..."

#### **Business Basics Certificate**

Page: 188

## **Description of Change:**

New title for Business Basics Certificate.

#### New text:

**Business Enterprise Certificate** 

#### **McCormick Curriculum Requirements**

Page: 191

## **Description of Change:**

Remove MECH\_ENG 262-0 "Stress Analysis and Finite Elements I," from the selection of courses listed under the general basic engineering area "Fluids and Solids"

### New text:

Page: 191

# **Description of Change:**

All 16 courses under the Major Program requirements must be 200-level or higher.

### New text:

**Page:** 191

# **Description of Change:**

Remove BMD\_ENG 221-0 from the list of possible Electrical Science courses of the Basic Engineering Requirement.

#### New text:

Page: 191

## **Description of Change:**

Relocate the course, CIV\_ENG 304-0 "Civil and Environmental Engineering Systems Analysis", from the Computer Architecture and Numerical Methods category to the Systems Engineering and Analysis category.

Page: 190

## **Description of Change:**

Add new department abbreviation.

### New text:

EECS (electrical engineering and computer science)

Page: 190

## **Description of Change:**

Course redesignation for merger of departments, electrical and computer engineering with computer science. Segment I.

#### New text:

Courses previously designated as ECE or COMP\_SCI will now be designated as EECS. The conversions are the following (and a few renumberings are noted):

COMP\_SCI 110-0 becomes EECS 110-0 Introduction to Computer Programming

COMP\_SCI 111-0 becomes EECS 111-0 Fundamentals of Computer Programming

COMP\_SCI 120-0 becomes EECS 120-0 Intro to Computers & Info Technology

COMP\_SCI 130-0 becomes EECS 130-0 Tools and Technology of the World-Wide Web

COMP\_SCI 211-0 becomes EECS 211-0 Fundamentals of Computer Programming 2

COMP\_SCI 213-0 becomes EECS 213-0 Introduction to Computer Systems

COMP\_SCI 310-0 becomes EECS 310-0 Mathematical Foundations of Comp Science

COMP\_SCI 311-0 becomes EECS 311-0 Data Structures & Data Management

COMP\_SCI 314-0 becomes EECS 314-0 Applied Artificial Intelligence

COMP\_SCI 317-0 becomes EECS 317-0 Data Management & Information Processing

COMP\_SCI 322-0 becomes EECS 322-0 Compiler Construction

COMP\_SCI 325-1 becomes EECS 325-1 Artificial Intelligence Programming

COMP\_SCI 330-0 becomes EECS 330-0 Human Computer Interaction

COMP\_SCI 336-0 becomes EECS 336-0 Design & Analysis of Algorithms

COMP\_SCI 338-0 becomes EECS 338-0 Practicum in Intelligent Information Systems

COMP\_SCI 337-0 becomes EECS 337-0 Natural Language Processing

**Page:** 190

## **Description of Change:**

Course redesignation for merger of departments, electrical and computer engineering with computer science. Segment II.

### New text:

COMP\_SCI 339-0 becomes EECS 339-0 Introduction to Database Systems

COMP\_SCI 340-0 becomes EECS 340-0 Introduction to Networking

COMP\_SCI 343-0 becomes EECS 343-0 Operating Systems

COMP\_SCI 344-0 becomes EECS 344-0 Design of Computer Problem Solvers

COMP\_SCI 348-0 becomes EECS 348-0 Introduction to Artificial Intelligence

COMP\_SCI 351-0 becomes EECS 351-0 Introduction to Computer Graphics

COMP\_SCI 370-0 becomes EECS 370-0 Computer Game Design

COMP\_SCI 394-0 becomes EECS 394-0 Software Project Mgt & Development

COMP\_SCI 395-0 becomes EECS 395-0 Special Topics in EECS

ECE 202-0 becomes EECS 202-0 Introduction to Electrical Engineering

ECE 203-0 becomes EECS 203-0 Introduction to Computer Engineering

ECE 205-0 becomes EECS 205-0 Fundamentals of Comupter System Software

ECE 221-0 becomes EECS 221-0 Fundamentals of Circuits

ECE 222-0 becomes EECS 222-0 Fundamentals of Signals & Systems

ECE 223-0 becomes EECS 223-0 Funadamentals of Solid State Engineering

ECE 224-0 becomes EECS 224-0 Fund of Electromagnetics & Photonics

ECE 225-0 becomes EECS 225-0 Fundamentals of Electronics

ECE 230-0 becomes EECS 230-0 Programming for Computer Engineers

ECE 231-0 becomes EECS 231-0 Advanced Programming for Computer Engineers

ECE 250-0 becomes EECS 250-0 Physical Electronics

**Page:** 190

# **Description of Change:**

Course redesignation for merger of departments, electrical and computer engineering with computer science. Segment III.

### New text:

ECE 270-0 becomes EECS 270-0 Applications of Electronic Devices

ECE 302-0 becomes EECS 302-0 Probabilistic Systems and Random Signals

ECE 303-0 becomes EECS 303-0 Advanced Digital Design

ECE 306-0 becomes EECS 306-0 Electronic Circuits ECE 307-0 becomes EECS 307-0 Communications Systems ECE 308-0 becomes EECS 308-0 Advanced Electromagnetics and Photonics ECE 313-0 becomes EECS 313-0 Telecommunication Networks for Multimedia ECE 328-0 becomes EECS 328-0 Numerical Methods for Engineers ECE 332-0 becomes EECS 332-0 Dig Image Analaysis ECE 333-0 becomes EECS 333-0 Introduction to Communication Networks COMP\_SCI 332-0 becomes EECS 334-0 Introduction to Computer Vision ECE 346-0 becomes EECS 346-0 Microprocessor System Design ECE 347-0 becomes EECS 347-0 Microprocessor System Projects COMP SCI 350-0 becomes EECS 350-0 Introduction to Computer Security COMP SCI 352-0 becomes EECS 352-0 Machine Perception of Music ECE 353-0 becomes EECS 353-0 Digital Electronic Circuits and Systems ECE 357-0 becomes EECS 357-0 Design Automation in VLSI ECE 358-0 becomes EECS 358-0 Introduction to Parallel Computing ECE 359-0 becomes EECS 359-0 Digital Signal Processing ECE 360-0 becomes EECS 360-0 Introduction to Feedback Systems

**Page:** 190

# **Description of Change:**

Course redesignation for merger of departments, electrical and computer engineering with computer science. Segment IV.

#### New text:

ECE 361-0 becomes EECS 361-0 Computer Architecture

ECE 362-0 becomes EECS 362-0 Computer Architecture Projects

ECE 363-0 becomes EECS 363-0 Digital Filtering

ECE 365-0 becomes EECS 365-0 Communication Filters

COMP\_SCI 360-0 becomes EECS 366-0 Designing & Constructing Models w Multi-Agent Lang

ECE 374-0 becomes EECS 374-0 Introduction to Digital Control

ECE 378-0 becomes EECS 378-0 Digital Communications

ECE 379-0 becomes EECS 379-0 Lasers and Coherent Optics

ECE 380-0 becomes EECS 380-0 Wireless Communications

ECE 381-0 becomes EECS 381-0 Electronic Materials: Properties and Applications

ECE 382-0 becomes EECS 382-0 Photonic Information Processing

ECE 383-0 becomes EECS 383-0 Fiber Optic Communications

ECE 384-0 becomes EECS 384-0 Solid State Electronic Devices

ECE 385-0 becomes EECS 385-0 Optoelectronics

ECE 386-0 becomes EECS 386-0 Computational Electromagnetics and Photonics

ECE 388-0 becomes EECS 388-0 Microelectronic Technology

ECE 389-0 becomes EECS 389-0 Superconductivity and Its Applications

ECE 390-0 becomes EECS 390-0 Introduction to Robotics

ECE 391-0 becomes EECS 391-0 VLSI Systems Design

ECE 392-0 becomes EECS 392-0 VLSI Systems Design Projects

ECE 394-0 becomes EECS 355-0 ASIC and FPGA Design

ECE 397-0 becomes EECS 397-0 Special Topics in Electrical Engineering

ECE 398-0 becomes EECS 398-0 Electrical Engineering Design

ECE 399-0 becomes EECS 399-0 Projects

Page: 191

# **Description of Change:**

Rename the selection category for materials science

#### New text:

Materials Science and Engineering

## **Applied Mathematics**

Page: 192

## **Description of Change:**

make MATH 325-0 be an alternative to ES\_APPM 311-3.

#### New text:

ES\_APPM 311-3 or MATH 325-0.

Page: 192

# **Description of Change:**

Add requirement under Major Program.

#### New text:

ES\_APPM 346-0 "Modeling and Computation in Science and Engineering"

## **Description of Change:**

Eliminate ES\_APPM 421-2 as a requirement

New text:

**Page:** 192

## **Description of Change:**

replace list of choices for the "1 of the following" with a statement

#### New text:

1 modeling course from an approved list.

**Page:** 192

## **Description of Change:**

Raise Required Courses to 8 and insert new course

## New text:

MATH 334 "Linear Algebra: Second Course"

Page: 192

## **Description of Change:**

Revise:

Additional courses -- 3 courses from....

#### New text:

Additional courses -- 2 courses:

1 in Probability and Statistics: IEMS 202, IEMS 303, Math 330-1,2,3 or EECS 302.

1 in Probability and Statistics (above) or IEMS 310-0 or IEMS 313-0.

**Page:** 192

# **Description of Change:**

Revise:

Engineering or the sciences - 4 courses leading to an in-depth understanding of an area of application (300-level or higher)

#### New text:

Engineering or the sciences -- 4 courses at the 300-level or higher leading to an approved concentration in an application area. The

concentration area can be in engineering, the sciences, mathematical social sciences, e.g., economics, math, e.g., discrete math or analysis, or numerics.

Page: 192

## **Description of Change:**

Revise choices under Basic engineering.

#### New text:

EECS 230-0 or EECS 231-0

4 courses from at least 3 of the following areas: computer architecture and numerical methods, electrical science, fluids and solids, materials science, systems engineering and analysis,

and thermodynamics.

## **Biomedical Engineering**

Page: 193

## **Description of Change:**

Delete requirement of CHEM 210-2 under Major Program.

New text:

**Page:** 193

# **Description of Change:**

Require all 3 quarters of Systems Physiology.

#### New text:

BME 301-0, 302-0, 303-0 Systems Physiology under Major Program.

**Page:** 193

# **Description of Change:**

Add requirement.

#### New text:

BME 101-0 "Introduction to Biomedical Engineering" under Major Program.

## **Computer Engineering**

**Page:** 195

### **Description of Change:**

Add course to the "Software Track" selections.

#### New text:

EECS 339-0 "Introduction to Database Systems".

# **Computer Science**

## **Description of Change:**

Add a required course to the Major Program

### New text:

EECS 213 "Introduction to Computer Systems" 6 computer science courses at the 200-level ...

## **Electrical Engineering**

**Page:** 195

## **Description of Change:**

restriction on the last course under Basic Engineering

### New text:

1 other course from Thermodynamics, Fluids and Solids, Systems Engineering, or Materials Science and Engineering

Page: 196

## **Description of Change:**

Add a new track

### New text:

Biomedical engineering track:

BMD\_ENG 317 Biochemical Sensors

BMD\_ENG 325 Introduction to Medical Imaging

BMD\_ENG 327 Magnetic Resonance Imaging

BMD\_ENG 333 Modern Optical Microscopy and Imaging

BMD\_ENG 383 Cardiovascular Instrumentation

Page: 196

# **Description of Change:**

add alternative to EECS 360 plus another course to the Control systems track.

#### New text:

EECS 360 Introduction to Feedback Systems or MECH\_ENG 391 Fluid Control Systems

. . .

MECH\_ENG 333 Introduction to Mechatronics

**Page:** 196

# **Description of Change:**

From the Solid state engineering track, delete EECS 115 and add MECH\_ENG 381

. . .

MECH\_ENG 381 Introduction to MEMS

## **Environmental Engineering**

**Page:** 196

# **Description of Change:**

complete the listing of 12 Core courses.

#### New text:

add:

ENV\_SCI 201 Earth: Habitable Planet ENV\_SCI 202 The Health of the Biosphere ENV\_SCI 203 Atmosphere and Climate

# **Industrial Engineering**

**Page:** 197

## **Description of Change:**

revise senior design project requirements

#### New text:

Senior design project -- 2 courses IEMS 393 Industrial Engineering Design Project 1 course chosen from: IEMS 390 Systems Management IEMS 391 Industrial Engineering Design IEMS 392 Systems Management Project

**Page:** 197

# **Description of Change:**

another technical elective

#### New text:

Electives -- 7 courses 4 from IEMS (excluding 399) or IDEA 344 Manufacturing Engineering Design

## **Manufacturing and Design Engineering**

**Page:** 197

# **Description of Change:**

under Basic Engineering, make the materials course be just 201

Materials science: MAT\_SCI 201

**Page:** 197

# **Description of Change:**

add an alternative to 308

#### New text:

Core -- 10 courses:

IDEA 308 Human-Centered Product Design or MECH\_ENG 315 Theory of Machines - Design of Elements

. . .

**Page:** 197

# **Description of Change:**

revised design project selections

#### New text:

1 of the following:

IEMS 391 Industrial Engineering Design Project

MECH\_ENG 398 Engineering Design or IDEA 298 Interdisciplinary Design Projects I

• • •

**Page:** 197

# **Description of Change:**

refine Technical Electives statement

#### New text:

Technical Elecives -- 4 courses:

2 courses from the approved list and 2 300-level engineering courses.

# **Materials Science and Engineering Curriculum**

**Page:** 197

# **Description of Change:**

delete the word, Curriculum, from the title.

New text:

**Page:** 189

### **Description of Change:**

refined technical elective selection.

... At least 2 of the 5 must be 300-level materials science and engineering courses. ...

## **Mechanical Engineering**

Page: 198

# **Description of Change:**

Remove MECH\_ENG 262 "Stress Analysis and Finite Elements I," from the selection of courses listed under the general basic engineering area "Fluids and Solids".

New text:

Page: 198

## **Description of Change:**

Add restriction to the technical elective set within the Major Program.

#### New text:

One elective must be in mathematics or the basic sciences. It may be any 300-level course in Mathematics, Applied Mathematics or Statistics; IEMS 201-0 or IEMS 202-0; or any 200-or 300-level course in Physics and Astronomy, Chemistry, Geological Sciences or Biological Sciences with the following exceptions: PHYS 301-0, CHEM 393-0, GEOL 221-0, 288-0, BIOL 307-0.

## **General Engineering Courses**

Page: 199

## **New Course**

**GEN\_ENG GEN\_ENG 220-1,2 Analytic and Computer Graphics** 

(0.5 units of credit each segment) The first half (GEN\_ENG 220-1) is a first course in creating in AutoCAD software. The second half (GEN\_ENG 220-2) is a course in 3D parametric modeling with AutoDesk Inventory.

Page: 199

# GEN\_ENG 220-0 Analytical and Computer Graphics Description of Change:

Remove GEN\_ENG 220-0

#### New text:

Courses

Page: 201 **New Course** BMD\_ENG BMD\_ENG 349 Bioregenerative Engineering Fundamentals, mechanisms, and clinical significance of biological regeneration and application of engineering principles to regenerative medicine. Prerequisite: BIOL\_SCI 210-2 **Page: 201** BMD\_ENG 338-0 Interaction of Laser Radiation with Tissue **Description of Change:** Drop this course. New text: Page: 201 BMD\_ENG 379-0 Artificial Organs **Description of Change:** Drop this course. New text: Page: 201 BMD\_ENG 372-0 Hemodynamics **Description of Change:** Drop this course. New text: **Page: 201** 

BMD\_ENG 321-0 Theory and Control of Biological Systems Description of Change:

Drop this course.

New text:

Page: 201

BMD\_ENG 366-0 Biomechanics of Movement Description of Change:

Change prerequisite.

New Prerequisite: MECH\_ENG 202 or BMD\_ENG 271, or consent of instructor.

Page: 201

BMD\_ENG 371-0 Mechanics of Biological Tissue Description of Change:

Change prerequisite.

New text:

New Prerequisite: GEN\_ENG 205-1, 205-2, and BMD\_ENG 271.

**Page:** 200

BMD\_ENG 221-0 Analysis and Simulation of Biological Systems Description of Change:

Drop this course.

New text:

Courses

**Page:** 203

**New Course** 

CHEM\_ENG CHEM\_ENG 365-0 Sustainability, Technology, and Society

Technical discussion of sustainability, sustainable development, global warming, natural and renewal resources and utilization, industrial ecology, eco-efficiency, technology related to sustainability, and risk assessment. Prerequisite: Junior Standing in Science or Engineering.

**Page: 204** 

CHEM\_ENG 377-0 Bioseparations

**Description of Change:** 

Change prerequisite.

New text:

New Prerequisite: CHEM\_ENG 275-0 or BIOL\_SCI 210-2; CHEM\_ENG 323-0 (may be taken concurrently).

Courses

**Page:** 208

COMP\_SCI 322-0 Compiler Construction

**Description of Change:** 

Change prerequisite

New Prerequisite: EECS 311-0 and (EECS 213-0 or (EECS 205-0 and EECS 231-0)).

**Page:** 208

# COMP\_SCI 110-0 Introduction to Computer Programming Description of Change:

add restriction at the end of the description

New text:

Not to be taken for credit with, or after taking, COMP\_SCI 111.

Page: 209

# COMP\_SCI 399-0 Projects Description of Change:

Drop this course.

New text:

Page: 209

# COMP\_SCI 395-0 Special Topics in Computer Science Description of Change:

Replace course.

#### New text:

Now EECS 395-0 "Special Topics in Electrical Engineering and Computer Science."

**Page:** 209

# COMP\_SCI 332-0 Introduction to Computer Vision Description of Change:

New course number and prerequisites.

New text:

New course number: EECS 334-0

New Prerequisite: EECS 311 and IEMS 201.

**Page:** 208

# **COMP\_SCI 211-0 Fundamentals of Computer Programming II Description of Change:**

New title and prerequisite

#### New text:

"Object Oriented Programming in C++."

New Prerequisite: EECS 110-0 or 111-0 or knowledge of any programming language. Not to

be taken for credit with, or after taking, EECS 230 or ECE 231.

Page: 209

# COMP\_SCI 339-0 Introduction to Database Systems

**Description of Change:** 

Change prerequisite

New text:

New Prerequisite: EECS 311-0 and (EECS 213-0 or (EECS 205-0 and EECS 231-0))

Page: 209

# COMP\_SCI 340-0 Introduction to Networking

**Description of Change:** 

Change prerequisite.

New text:

New Prerequisite: EECS 311-0 and (EECS 213-0 or (EECS 205-0 and EECS 231-0))

Page:

# COMP\_SCI 343-1,2 Operating Systems

**Description of Change:** 

Change prerequisites.

New text:

New Prerequisites: EECS 311-0 and (EECS 213-0 or (EECS 205-0 and EECS 231-0))

Page:

# **COMP\_SCI 360-0 Designing and Constructing Models with Multi-Agent Languages**

**Description of Change:** 

Change in the course number and prerequisite to accommodate the merger of COMP\_SCI and ECE.

New text:

New course number: EECS 366-0. New Prerequisite: EECS 311-0.

Courses

**Page:** 210

# **IDEA 370-0 Engineering Portfolio Development Description of Change:**

Change in the course credit from 0.5 Units to 1.0 Units.

## **Electrical and Computer Engineering**

**Page:** 210

## **Description of Change:**

The Department of Electrical and Computer Engineering has now merged with the Department of Computer Science to form the new Department of Electrical Engineering and Computer Science.

### New text:

Courses

Page: 213

## **New Course**

**ECE EECS 350-0 Introduction to Computer Security.** 

In this course, students will understand and apply the basic principles and practices of computer and communication security. Prerequisite: EECS 213.

**Page:** 213

### **New Course**

**ECE EECS 352-0 Machine Perception of Music** 

Machine extraction of musical structure in audio, MIDI and score files, covering areas such as source separation and perceptual mapping of audio to machine-quantifiable measures. Prerequisite: EECS 211 or Permission of Instructor.

Page: 213

#### **New Course**

**ECE EECS 349-0 Algorithmic Techniques for Bioinformatics.** 

This interdisciplinary course focuses on fundamental algorithmic techniques for computational problems that arise from sequencing and analyzing DNA, RNA and proteins. Prerequisite: EECS 336 or permission of instructor.

Page: 214

ECE 394-0 ASIC and FPGA Design

**Description of Change:** 

Change in the course number and prerequisite to accommodate the merger of COMP\_SCI and ECE.

## New text:

New course number: EECS 355-0 . New Prerequisite: EECS 303-0.

Page: 212

# ECE 231-0 Programming for Computer Engineers Description of Change:

correct title, and new restriction

#### New text:

TITLE: Advanced Programming for Computer Engineers

RESTRICTION: Not to be taken for credit with, or after taking, EECS 230 or 211.

**Page:** 213

# ECE 360-0 Introduction to Feedback Systems Description of Change:

new restriction

#### New text:

Not to be taken for credit with, or after taking, MECH\_ENG 391.

**Page:** 212

# ECE 230-0 Programming for Computer Engineers Description of Change:

add restrictions

### New text:

Not to be taken for credit with, or after taking, EECS 231 or EECS 211.

**Page: 214** 

# ECE 397-0 Special Topics in Electrical Engineering and Computer Engineering Description of Change:

New title and course number.

#### New text:

EECS 395-0, "Special Topics in Electrical Engineering and Computer Science."

**Page:** 213

#### **New Course**

ECE EECS 356-0 Introduction to Formal Specification and Verification

Introduction to formal techniques used for system specifications and verifications: temporal logic, set theory, proofs, and model checking. TLA+ (Temporal Logic of Actions) specifications. Safety and liveness properties. Real time specs and verifications.

Courses

**Page:** 214

## **New Course**

ES\_APPM 321-0 Modeling Soft Matter: Networks, Membranes, Fluctuations

Fundamental mathematical tools (e.g. differential geometry, variational calculus) are applied to modern concepts of soft matter structure and mechanics in various fields (e.g. biological membranes, polymers).

Prerequisites: 311-1 and 311-2, or consent of instructor.

## **General Business Management**

**Page:** 216

# IEMS 326-0 Economics and Finance for Engineers Description of Change:

Prerequisite change.

#### New text:

New prerequisite: MATH 220-0; basic understanding of probability and economics recommended.

**Page:** 215

# IEMS 224-0 Principles of Accounting and Finance Description of Change:

Add restriction.

#### New text:

Not to be taken for credit with, or after taking, ECON 260.

## **Operations Research**

**Page:** 217

# IEMS 313-0 Deterministic Models and Optimization Description of Change:

New prerequisite

#### New text:

MATH 230-0, GEN\_ENG 205-1, and sophomore standing.

# IEMS 317-0 Discrete-Event Systems Simulation Description of Change:

New prerequisite

New text:

IEMS 303-0; 310-0 or 315-0.

Page:

# IEMS 313-0 Deterministic Models and Optimization Description of Change:

New prerequisite

New text:

MATH 230-0, GEN\_ENG 205-1, and sophomore standing.

**Probability and Statistics** 

Page: 216

# IEMS 202-0 Probability Description of Change:

New prerequisite and restriction

### New text:

Concurrent enrollment on MATH 234. Not to be taken for credit with, or after taking, MATH 310-1.

Page: 216

# IEMS 304-0 Statistics II Description of Change:

New restriction

## New text:

Not to be taken for credit with, or after taking, STAT 320-2.

**Page:** 216

# IEMS 303-0 Statistics I Description of Change:

New restriction

#### New text:

Not to be taken for credit with, or after taking, STAT 320-1.

# IEMS 201-0 Introduction to Statistics Description of Change:

New restriction

#### New text:

Not to be taken for credit with, or after taking, STAT 210.

**Courses** 

**Page:** 219

# MAT\_SCI 201-0 Principles of the Properties of Materials Description of Change:

New restriction

#### New text:

Not to be taken for credit with, or after taking, MAT\_SCI 203 or 301.

**Page:** 219

# MAT\_SCI 301-0 Chemical Aspects of Engineering Materials Description of Change:

New restriction

#### New text:

Not to be taken for credit with, or after taking, MAT\_SCI 201 or 203.

**Page:** 219

# MAT\_SCI 203-0 Microstructure and Engineering Properties of Materials Description of Change:

New restriction

#### New text:

Not to be taken for credit with, or after taking, MAT\_SCI 201 or 301.

**Page:** 219

# MAT\_SCI 314-0 Thermodynamics of Materials Description of Change:

New restriction.

#### New text:

MS&E majors cannot take this course for credit with, or after taking, CHEM 342-1.

Courses

## **New Course**

# MECH\_ENG MECH\_ENG 260-0 Mechanics of Sports

Applications of mechanics and mathematical modeling to sports: baseball, basketball, golf, soccer, swimming, running, and others. Introduction to the biomechanics of sports. Prerequisite: GEN\_ENG 205-2, MATH 230, or High School Physics and Consent of Instructor.

**Page:** 219

# MECH\_ENG 240-0 Introduction to Mechanical Design and Manufacturing Description of Change:

New prerequisite.

New text:

New prerequisite: MAT\_SCI 201-0 and CIV\_ENG 216-0.

**Page:** 223

# MECH\_ENG 391-0 Fundamentals of Control Systems Description of Change:

New restriction

### New text:

Not to be taken for credit with, or after taking, EECS 360.

Page: 219

# MECH\_ENG 315-0 Theory of Machines-Design of Elements Description of Change:

New prerequisite

New text:

New prerequisite: MAT\_SCI 201-0 and CIV\_ENG 216-0.

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Return to Supplement to the Undergraduate Catalog 2005-2007

Medill School of Journalism: Supplement to the Undergraduate Catalog 2005-2007

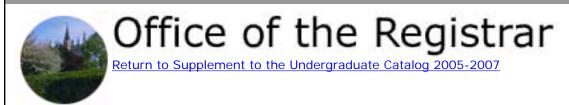
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School of Music: Supplement to the Undergraduate Catalog 2005-2007

**Bachelor of Music** 

Page: 231

**Description of Change:** correction to text, second line

New text:

general music studies should be "general academic studies"

Five-Year BS/BMJ or BS/BAMJ

**Page:** 232

# **Description of Change:**

Correction to paragraph heading (degree names incorrectly listed)

#### New text:

Five-Year BM/MSJ or BAMus/MSJ

**Double Major** 

**Page:** 233

## **Description of Change:**

Add text

#### New text:

School of Music students may earn a second major in WCAS and complete the requirements in four years, although only one degree would be earned. Only students in five-year programs earn two bachelor's degrees.

Music students wishing to pursue a major in the School of Communication, SESP, or Medill would need to inter-school transfer to that school. Students would earn their Northwestern degree from that school and would have a second major in music, but would not receive an actual BM degree.

### **Minor Programs**

Page: 233

# **Description of Change:**

revised title for music business add musicology minor to list

#### New text:

Arts Administration Musicology

Page: 234

## **Description of Change:**

Add text

### New text:

Musicology

The minor in musicology requires 6 courses:

Six 300-level courses in MUSICOL, at least one of which must be chosen from 321-329 (music of the world's cultures), and at least one of which must be chosen from 350-355 (historical art-music).

### **Music Business**

**Page:** 234

# **Description of Change:**

Title change - Music Business minor changed to Arts Administration

## New text:

**Arts Administration** 

The minor in arts administration requires 8 courses.

### **Musical Organizations**

Page: 235

## **Description of Change:**

add text

### New text:

Guitar Ensemble

Performance of the chamber literature for guitar: guitar duos, trios, and quartets; flute and guitar; voice and guitar; chamber works with strings; other instrumental combinations.

### **Music Studies for Nonmajors**

Page: 237

# **Description of Change:**

correction to text (fees)

### New text:

A registration fee of \$230 (for 2006-07) is billed to the student's tuition and fees account.

. . .

A registration fee of \$205 for voice classes, \$240 for beginning private voice lessons, or \$305 for intermediate of advanced private voice lessons (for 2006-07) is billed to the student's tuition and fees account.

#### **Courses Open to Undergraduates**

**Page:** 238

# GEN\_MUS 241-0 Beginning Guitar Description of Change:

correction to course number

#### New text:

new course number GEN\_MUS 121-0

Page: 237

#### **New Course**

**GEN\_MUS 121-0 Beginning Guitar** 

Group lessons in guitar techniques for beginners.

**Page:** 238

# **GEN\_MUS 241-0 Beginning Guitar**

**Description of Change:** 

correction to course number

### New text:

Beginning Guitar: old course number GEN\_MUS 241-0.

New course number GEN\_MUS 121-0.

#### **Courses Open to Undergraduates**

Page: 238

## **New Course**

## MUSIC 101-1,2,3 Theory Skills Testing

Zero credit, series of computerized exams on basic theory skills. Taken in conjunction with MUSIC 111-1(or 110-0),2,3. Prerequisite: preceding quarter of 101.

**Page:** 238

# New Course MUSIC 110-0 Theory Skills Preparation

(.5) A basic music theory course for incoming music majors. Taken as an alternative to MUSIC 111-1 for those students needing emphasis on basic skills in addition to the established 111-1 curriculum.

**Music Composition** 

Page: 240

## **Description of Change:**

correction

#### New text:

For music education majors, instrumental track: MUSIC\_ED 362 Teaching General Methods II is required. MUSIC\_ED 361 Teaching General Methods I is optional.

**Page:** 239

# **Description of Change:**

correction to course numbers/titles in the music composition major

#### New text:

- \* 316 Baroque Counterpoint (1 unit)
- \* 317 Renaissance Counterpoint (1 unit)

**Courses Open to Undergraduates** 

Page: 240

# MUS\_COMP 316-0 Baroque Counterpoint Description of Change:

Course number correction

Baroque dance suite, chorale prelude, invention, fugue, chiefly involving the music of J. S. Bach. Melodic, harmonic, structural characteristics; contrapuntal techniques.

**Page:** 240

# MUS\_COMP 317-0 Renaissance Counterpoint Description of Change:

Course number correction

#### New text:

Contrapuntal textures from two to four voices. Cadence and form, melodic line and motive, rhythm, simple and complex imitation, and treatment of dissonance in the sacred music of Lassus, Josquin, and Palestrina.

**Courses Open to Undergraduates** 

Page: 241

# MUSIC\_ED 240-0 Recorder Class (.5) Description of Change:

Course number change

#### New text:

MUSIC\_ED 240 is now 242 "Recorder Class"

Page: 241

New Course MUSIC\_ED 240-0 Classroom Instruments

**Courses Open to Undergraduates** 

**Page:** 244

**New Course** 

**CONDUCT 345-0 Orchestral Bowing: Style and Function** 

**Page: 244** 

**New Course** 

**CONDUCT 345-0 Orchestral Bowing: Style and Function** 

In-depth analysis of bowing function, styles, and performance practice. Open to string and non-string players. Includes rehearsal protocol, individual projects, and hands-on applications. Final project: bowing analysis of a major work.

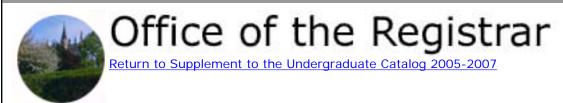
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Administration and Faculty: Supplement to the Undergraduate Catalog 2005-2007

## Administration

Page: 282

## **Description of Change:**

correction to text

#### New text:

Toni-Marie Montgomery, DMA Dean of the School of Music and Professor of Music; also African American Studies

René E. Machado, MM Associate Dean for Administration and Finance

Linda A. Garton, PhD Assistant Dean for Admission and Student Affairs

Stephen Hill, PhD Assistant Dean for Academic Affairs and Graduate Studies

Thomas A. Bauman, PhD Chair of Music Studies and Professor of Musicology

Karen Brunssen, BM Cochair of Music Performance, Coordinator of Voice and Opera Program, and Associate Professor of Voice

Charles Geyer, MM Cochair of Music Performance and Professor of Trumpet Office of the Registrar • 633 Clark Street • Evanston, Illinois 60208-1118
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